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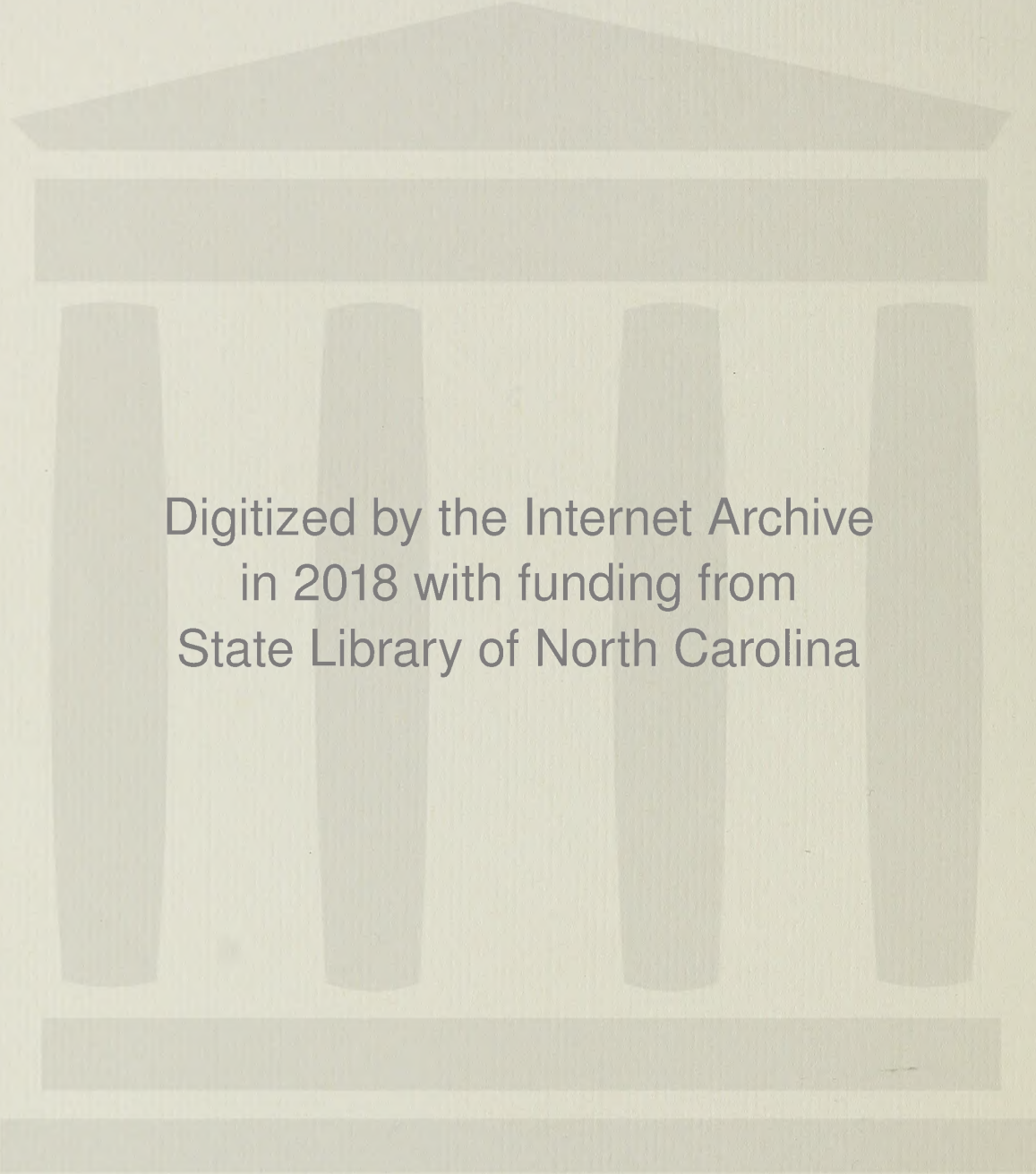
THE PRESIDENT'S REPORT

BY GORDON GRAY



1948

1953

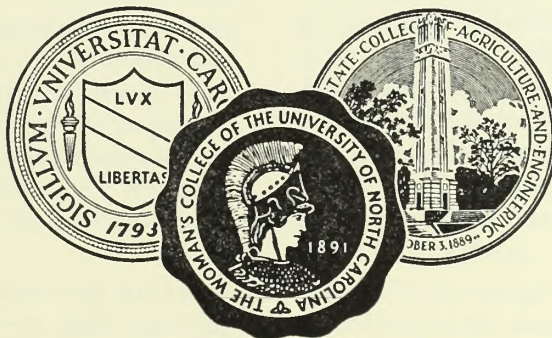


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THE PRESIDENT'S REPORT

A FIVE YEAR REPORT BY PRESIDENT GRAY, TO HIS EXCELLENCY GOVERNOR WILLIAM B. UMSTEAD, AND TO THE MEMBERS OF THE BOARD OF TRUSTEES OF THE UNIVERSITY OF NORTH CAROLINA

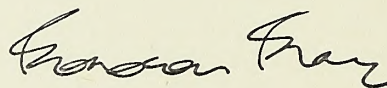
1948-1953.



*To His Excellency, Governor William B. Umstead,
and the Members of the Board of Trustees of The
University of North Carolina:*

I submit herewith my report for the three-fold
University of North Carolina for the years 1948-1953.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Gordon Gray". The signature is fluid and cursive, with the first name "Gordon" written in a larger, more prominent script than the last name "Gray".

President

THE PRESIDENT'S REPORT

A REPORT TO THE BOARD OF TRUSTEES OF THE UNIVERSITY OF NORTH CAROLINA
BY PRESIDENT GORDON GRAY, FOR THE YEARS 1948-1953

INTRODUCTION

This is my first formal report to you since I actively assumed the duties of President of the University of North Carolina in the summer of 1950, following my election to the office on February 6, 1950. In recent years it has been the practice to transmit summary reports to the Trustees at irregular intervals. The last such report was made in 1948. I am conforming to this practice, of course, in this report. Henceforth, I expect to adopt the practice of reporting to you annually.

When I entered upon my duties I believe that I brought at least three favorable qualifications: a dedication of my efforts to the service of the three units of the University, a sense of pride for the enviable national reputation of our institutions, and a willingness to learn what I needed to learn in order that I might serve effectively. In my deliberations over the nature and content of this report, I have had in mind that the Trustees also possess these qualifications. Yet in the performance of my duties it is natural that I should have learned some things which you, at a more remote position, do not have opportunity to observe and to assimilate. Consequently, I have decided that my major emphasis in this report shall consist of an effort to convey to you a portrayal of the perspective which I have been able to attain since assuming the office of President. I will say some things which are pleasing. I will say some other things which I regret must be said.

In honesty more than in humility I feel that I must disclaim knowing all that I should know about my responsibilities. My own learning process must continue, for it is my firm conviction that static and inflexible opinions mark the end of the process rather than its goal. I therefore urge you to weigh my comments in the balances of your own judgment and in

the light of what you know. Perhaps then we may all be able more effectively to discharge our responsibilities: those which are yours by law and those which are mine by code.

The North Carolina Constitution of 1776 declared that "all useful learning shall be duly encouraged and promoted in one or more universities." The charter of the University of North Carolina, granted by act of the General Assembly in 1789, declared that "in all well regulated Governments, it is the indispensable duty of every Legislature to consult the Happiness of a rising Generation, and endeavor to fit them for an honorable Discharge of the Social Duties of Life, by paying strictest attention to their Education."

In the game of follow-the-leader which has done so much to set the pattern of education in our nation, the State of North Carolina assumed an early role of leadership. The first student ever to enroll in a state university in this nation entered at Chapel Hill on February 12, 1795. From the beginning our state has assumed responsibility for the education of youth; from the beginning to the present the words "indispensable duty" have held fast in the background of legislative deliberations. There have been times when economic conditions prevented our people doing all that they would have liked to do for education. Yet the *will* to support education has persisted. And indeed this *will* has resulted in our institutions at mid-twentieth century having the affection of the people of our state and the respect of the informed people of the nation.

But it is not enough that we should take pride in the wisdom of the founding fathers. Nor should we rest upon the accomplishments made possible by their legislative successors. It is not enough to recall the great professors of the past or to point to those who are now in service. It is not enough to measure greatness in terms which are *relative* or to refer to a use-

fulness which *was*. Esteem and respect for institutions must ever be buttressed by new strength; usefulness must ever be measured in terms of current needs and needs immediately foreseen; leadership must ever be reasserted by boldness which has been purged of foolhardiness through the exercise of wisdom and foresight.

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I wish to acknowledge with gratitude the assistance given me in the preparation of this report by Dr. George Simpson, of the faculty of the University at Chapel Hill. Without his competent help, I think I should never have assembled the material which it contains, nor begun the drafts which are now published in final form.

THE UNIVERSITY

As a university, our very being is in the world of universal knowledge, in its mastery, teaching and extension. As the *state* university we have the responsibility of administering to many special educational needs of North Carolina, and of keeping before us always the fact that the students we teach are a major and vital portion of the state's future mental and spiritual resources.

I have yet to discover any necessary contradiction between these two guiding elements of our work which, taken together, provide life and meaning for the University. In fact, there can be and often is a mutually rewarding interaction between the two. It is necessary to understand, however, that there exists here a definite relationship of great practical importance. The special educational services which the University may render to the state are extensions of the core of our scholarship; the quality of our special services will, inevitably, depend upon the quality of our scholarship. This proposition is disarmingly simple, though plausible factors obscuring it come along frequently. We must always remember what we are by charter: that part of the state's resources set aside, in the mature judgment of the people, for the mastery, transmission, application and extension of knowledge. If this was true in the founding of the

three institutions, it is even more true in the mid-twentieth century, when knowledge and training for our youth at the highest levels are minimum requirements if we are to give them equal opportunity, and the personal, mental, moral and spiritual resources for contented and effective living.

A statement of the main jobs of the University, I have discovered, is only the beginning of perspective. There is, additionally, the historical development of each of the three institutions, with all that each has in tradition, diversity and individuality. More than twenty years of consolidation has established that the essential integrity of each of the institutions is a major part of the strength of the University. Since this is established in our daily affairs, I need not elaborate on it further.

It is necessary, however, to deal in some detail with certain common elements shared by all three institutions in the present generation of their development, for what these institutions have in common is perhaps more compelling in the present situation than their differences. I would suggest that recently the main theme of the three units has been growth—growth in number of students, faculties, physical plant, and especially in complexity and variety of curricular offerings and service activities.

For our time, this growth began in the public schools. Though the statewide high school system was established only unevenly in 1908, within a few years pressures were being felt at Raleigh, Chapel Hill and Greensboro. At State College, enrollment was 552 in 1917-18; it was almost double that in the next year. At Carolina enrollment began to increase as fast as accommodations could be built, President Chase reporting in 1920 that dormitories built to house 469 were accommodating 750. Much the same was true at the Woman's College. The movement toward universal elementary and secondary education cast the die for large scale university education. Each of the three institutions now comprising the University became, in fact as well as in theory, a partner with the public school system of the state.

There was involved here considerably more than a larger number of students coming for the same education that was provided for the earlier pre-World War I generation. The need, and the demand on state

institutions, was for higher education that was directly applicable to the new conditions of twentieth century North Carolina, conditions that were being fulfilled in other areas by new highways, better public schools, increasing industrialization and urbanization, and concern for agricultural advancement. There were required whole new subject matter departments and schools and divisions in each of the three units.

Increasingly, faculties and students alike became more specialized, more departmentalized, and the job of coordinating, of preserving the wholeness of college and university education, and of dealing with the individual student, became more difficult. We were not alone; this was the major trend throughout the nation, and a trend that is even more pronounced today. President Chase, writing of the University at Chapel Hill in 1920, was remarkably foresighted when he said that "what is really happening is that the University is becoming different." The difference is the glory of democratic public education; it is also this difference that sets the context for both our major aims and problems now and in the future.

There was some interruption of growth during the depression years; it was resumed in the late thirties, halted during the war, and has burst forth with renewed vigor during the post World War II years. Perhaps a few quantitative measures will demonstrate the magnitude of this growth.

By going back thirty-five years to 1918, we could obtain some truly amazing comparisons between then and now. For instance, at the University at Chapel Hill there were 1,369 students enrolled in 1918; the current enrollment at Chapel Hill is virtually four times that figure. In 1918, total expenditures were \$622,123.91; in 1952-53 expenditures were \$14,042,091.66. In 1918 there were less than 100 full-time faculty members at Carolina; currently there are over 600. Similar comparisons could be made for the other two institutions. More relevant, perhaps, is to look at some changes that have occurred during the period of consolidation:

The combined total of students has nearly doubled.

The University at Chapel Hill is two and one-third times as large.

State College is two and one-seventh times as large.

The Woman's College is one and one-fifth times as large.

The combined total of the faculties is just over two and one-third times as large.

The University at Chapel Hill is 139 percent larger.

State College is 230 percent larger.

The Woman's College is 39 percent larger.

The combined value of physical plants has more than doubled, and is now valued at over eighty million dollars.

The combined annual operating budget has increased more than eleven fold, from \$2,678,440 to almost \$30,000,000 currently.

The real key to what this tremendous growth has meant to the three institutions and to the consolidated office is to be found in the physical growth and multiplication of departments, schools, divisions, colleges, institutes and a whole host of associated activities, on and off the campus. In the University there are no less than 160 major educational units—departments, schools, divisions, and colleges. To this must be added a long list of institutes, foundations, councils and other units, such as the Institute of Statistics, the Morehead Planetarium, the all-university Communication Center, the Minerals Research Laboratory, and the great overspreading Extension Services. The organizational charts in the appendix present this picture in detail.

The Present Situation

What, then, of our present situation? I think that it can fairly be said that the overall frame-work for a great modern university has been erected. We have expanded to meet the needs, in students, faculties, buildings and in service to the state. Our curricular offerings cover most of the essential areas. With respect to our continuous determination to build a truly great university, with a firm commitment to general excellence, we have reached a plateau just below the final peak.

It is in this quite specific context, therefore, that I report to you that our main requirement for the ascent of the final peak is a high quality of performance in all areas of our work. All of our work, I think, is adequate; much of it is very good;

some is excellent. There is, literally, no substitute in the progress of the University for individual and collective excellence: excellence in scholarship, in teaching, in research, in educational service to the state.

The burden of excellence falls upon the faculties, in the testing of fundamentals. They master the subject matter, teach the students, perform the research, and serve the people of the state. More than ever before, it is now the responsibility of administrative officers and trustees to seek to understand the conditions necessary for their work and to meet these conditions. Above all else, we must remain aware that the true scholar and teacher, by definition, is not all things to all men. Rather, his devotion to his work is usually the measure of his value, and his personal and professional integrity is one of our main guarantors of freedom of mind and spirit.

I do not suggest that we are in every respect equipped to achieve excellence immediately. But, in fairness to the people of the state, it must be said that we have reached the zone where general excellence is possible. Our needs now are not gross and across the board; they are specific. We need to keep pace with gradually increasing enrollments. We need certain new departments and agencies, but the greater need is for specific funds, equipment and personnel that will achieve excellence in existing departments. We need quality resources: money, morale and people that will convert present adequacy into excellence. Faculty salaries are low when compared with those received by many persons in other lines of endeavor requiring comparable, or less, training; but in the setting of higher education in America, our scales compare favorably with all but the very top group of universities.

The road to excellence will not be easy; but if we do not take it in this next era of the University's life, our lot will be to survive in retrogression. Universities do not stand still, in absolute or relative terms.

Major Organizational Changes

In this particular context of the development of the University, I want to discuss some organizational

changes that have been made, or are in immediate prospect. Inevitably, significant growth and expansion of any institution requires some revision of organizational arrangements. In considerable degree the administrative organization of large institutions that have grown from small institutions is a major problem of our times. It is particularly important in an educational institution, where there is real virtue in maintaining many of the earlier informal relationships among administrative people and the faculties, among the faculties themselves, and among the students and all those who teach and guide them. It is only when existing organizational arrangements cannot carry the increased load, when they hinder the educational work of the university, that changes are called for; and these changes must be designed to serve the faculties and students.

By 1950 the three units, individually and collectively as the University, had reached the point where some organizational changes were necessary. This was not only a normal result of growth, but also of the conditions of that growth. The University has grown, not from a blueprint, but when and as possible. Blueprints and plans and dreams have never been lacking; but more often than not resources have been. The result has been an opportunistic and bold expansion wherever possible, with administrative and faculty people often going well beyond the call of duty to take advantage of opportunities. This type of growth proceeds best, and certainly inevitably, along informal, *ad hoc* lines. Similarly, so far as the office of the President is concerned, the first era of consolidation called for flexible and adaptable arrangements, which Dr. Frank P. Graham provided with rare skill, until consolidation could find its job and prove its worth. And, in addition to all of these factors, the conditions of World War II and its aftermath made any major administrative changes virtually impossible.

Partly, perhaps, because of my lack of intimate knowledge of past developments, it appeared to me, as I attempted to achieve a view of the whole of the University, that some organizational changes were in order. This was confirmed by the judgment of mature administrative and faculty people. With their advice, therefore, I have put into motion a number of organizational changes.

The office of Provost has been created, as a staff officer in the consolidated office. The Provost deals with educational affairs and policies, and is the coordinating officer on educational policies among the three institutions. Dr. Logan Wilson held this position for only a year and a half before leaving to become president of the University of Texas. The value of the post was clearly demonstrated before he left.

The position of Assistant to the President has also been created, and has been filled with skill and devotion by Mr. William C. Friday.

Perhaps the most far reaching organizational changes will grow out of the survey of all administrative arrangements in the University currently being carried on by the management engineering firm of Cresap, McCormick and Paget. This survey is in its final stages; reports and recommendations will shortly be coming into my office. When completed, these reports and recommendations will be studied at length. A broad base of faculty advice on them will be sought and carefully considered. Following this, proposed changes in administrative structure will be submitted to the Board of Trustees in accordance with the University Code.

There is in progress a general reconsideration of the administrative code of the University and it is expected that a number of changes will be made with the consent of the Board of Trustees.

Regular monthly meetings of the Chancellors, President, Provost, Controller and Assistant Controllers and Business Managers are in effect.

In an effort to bridge the gap between trustees and the actual operations and conditions of the University, a series of trustee orientation programs has been established on a regular basis.

A long range program of establishing administrative responsibility and strength in the offices of Chancellors, Deans, and Department Chairmen is in effect. This program is necessarily a slow one, but it is part of our daily decisions in the conduct of the University's affairs.

An all-university faculty conference on the State of the University has been established as an annual affair, at which representatives of the three faculties examine basic educational problems and procedures.

ENROLLMENT

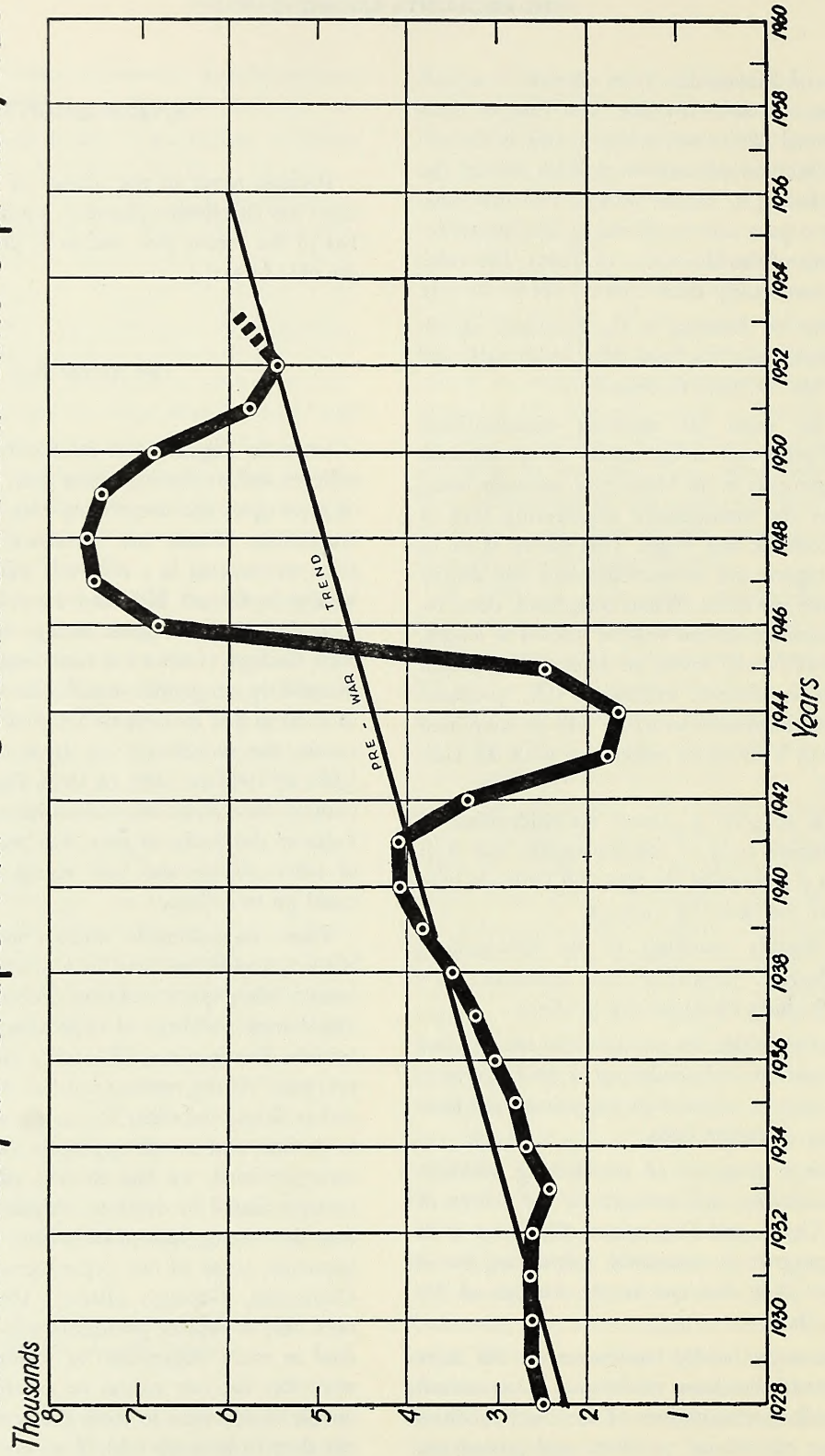
Perhaps never in the history of the three institutions has enrollment played so prominent a part as it has in the recent past, and as it promises to play in the near future.

The Recent Past

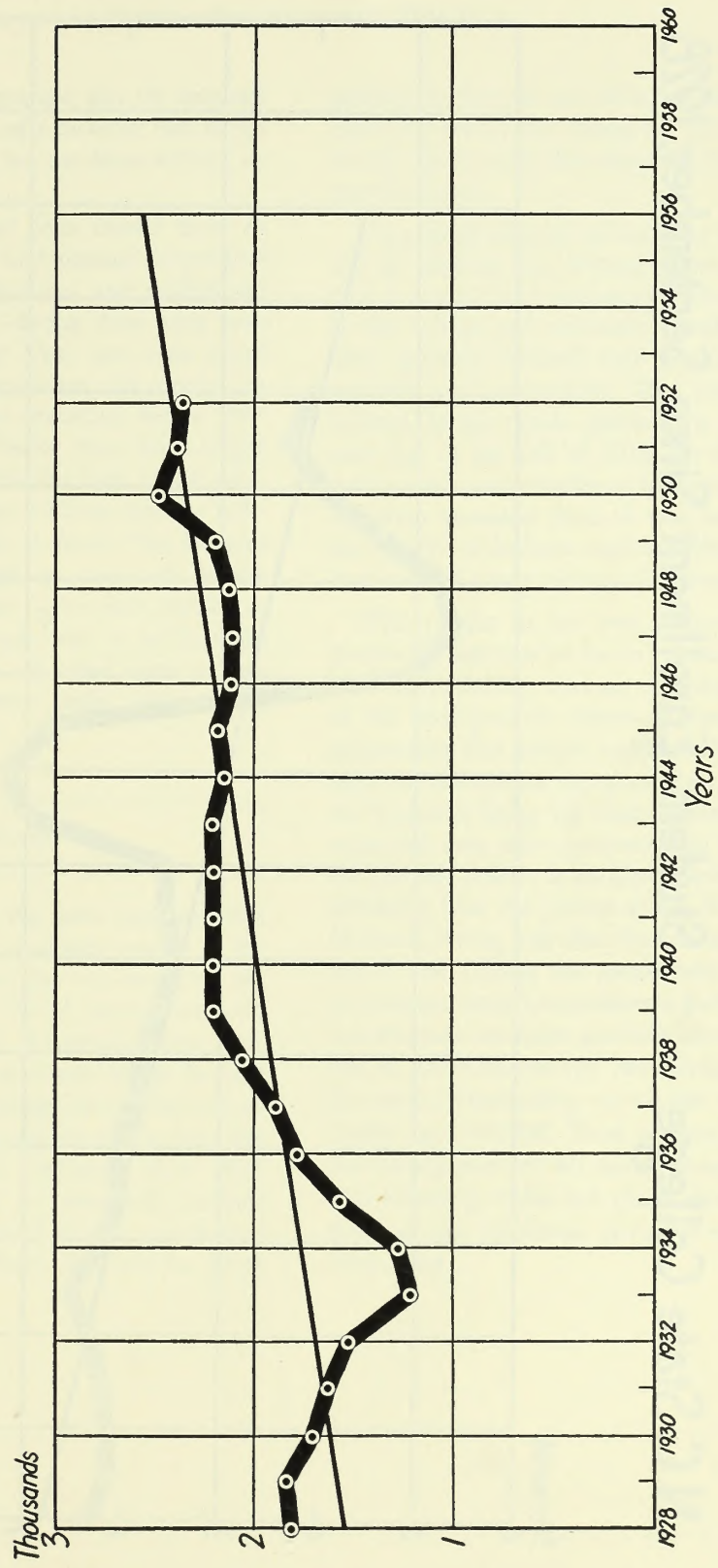
Since the beginning of the Second World War, all colleges and universities have gone through a period of great upset and uncertainty with respect to student enrollment. While the Woman's College has felt these movements in a relatively minor way, the University in Chapel Hill and State College have had their full share of great swings in enrollment. At State College, civilian (as contrasted with enrollment in military programs) enrollment went from 2,546 in 1940 to 822 in 1944 to 5,334 in 1947; at the University the movement was from 4,098 in 1940 to 1,681 in 1944 to 7,603 in 1948. Practically speaking, both of these latter institutions have been at times on a day to day basis, so great has been the uncertainty of where, when, and how young men and women could go to college.

These unpredictable fluctuations placed a great burden of swift and amiable adjustment upon all concerned. Many quick and hard decisions were required. There were problems of expansion; and also of contraction. For instance, Chancellor House reported last year that "As the veterans finished their work and left, and as Korea and other factors caused our enrollment to decline, and as our appropriations and earned income declined, we had to take advantage of every vacancy caused by death or resignation and commandeer the money vacated to balance our budget. Consequently, some of our departments, as for example, Philosophy, Geology, History, Physics, have never been able to replace professors who died or resigned. And in every department as major and minor men were lost for one reason or another we have been unable to add men to teach the new things that it is our duty to keep up with if we are to do our work."

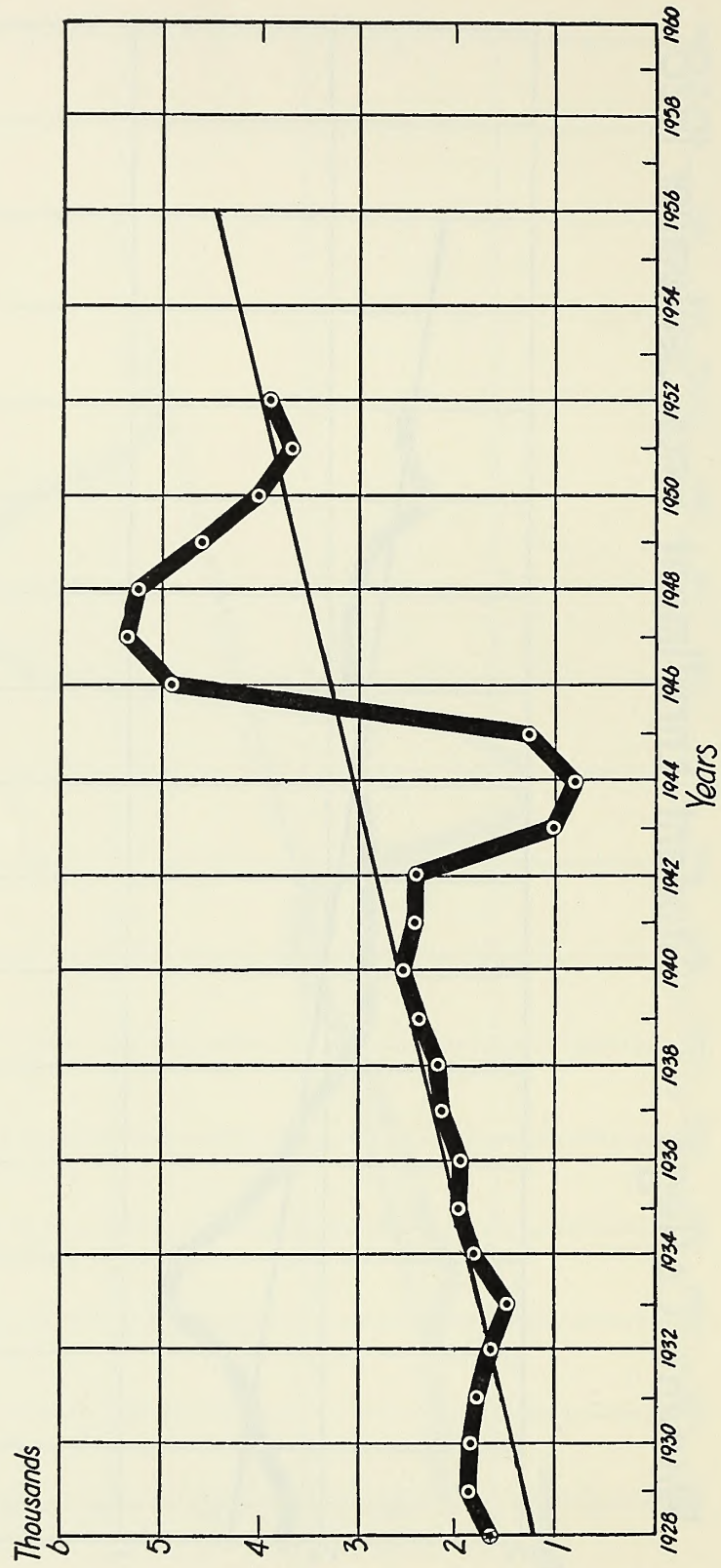
The University at Chapel Hill Student Enrollment Since September, 1928



Woman's College Student Enrollment Since September, 1928



N.C. State College Student Enrollment Since September, 1928



It is to the credit of all concerned that the response to these conditions has been of a character that served the state well. This period has not been without its wear and tear, however.

These problems have not been merely those of gross numbers. There have been unusual proportions in the upper classes and graduate and professional schools. The student bodies during these years have been almost without parallel. They have been mixed as to maturity, variety of experience, and concern for the immediate past and the immediate future. Veterans of Europe and the Pacific have been taught alongside comparatively immature high school graduates who, in turn, have been looking ahead to military training and, after 1950, to Korea. The faculties themselves have been caught up personally in the swirling confusion of the past twelve years, serving in the armed services, often sought after by industry and the government, and, all in all, called upon to preserve their scholarly posture under strange and unusual circumstances.

The Present

Of our present situation, the most important fact is that current enrollment is almost exactly at the point it would have been had the war conditions not interrupted pre-war trends. Stated another way, our present enrollment is not abnormally large, but, rather, reflects long standing trends in the increase in college attendance by young North Carolinians. The accompanying charts reveal this fact clearly. The dotted lines indicate actual enrollment since 1928. The solid straight lines are mathematically accurate trend lines for the same period. Current enrollments are virtually on the trend lines. It should be noted,

particularly, that the area of actual enrollment falling below the trend lines during the war years is almost exactly equal to the area above the trend lines in the post-war years.

The present situation of normalcy in enrollment is not an accident; nor, barring a national emergency, does it appear to be temporary. What has happened is that college and university enrollments generally have gradually worked their way back to normal numbers and proportions. This process is almost finished. In the nation generally, it is important to note that in the Fall of 1952, for the first time in several years, total enrollment in institutions of higher education increased. And, of even more importance, the number of students entering college for the first time showed a very substantial increase.

With respect to our own institutions, the most convincing sign that we are in a normal condition has been the increasing tendency over the past five years of the undergraduate classes to resume their usual proportions. The normal enrollment by classes in colleges and universities forms, roughly, a pyramid, with the freshmen being the most numerous, the sophomores the next most numerous, and so on. This was the pre-war pattern at all three institutions, and has invariably been the pattern at the Woman's College. However, during and after the war at the University and at State College this pattern was upset; at times, for instance, seniors outnumbered freshmen. However, this situation has been gradually correcting itself, so that at both Carolina and State during the past year the normal relationship among the classes has been closely approximated. There is every indication that the coming year will see this development continued. The following tables and charts show the changing five year class enrollment picture at each of the three institutions.

THE UNIVERSITY OF NORTH CAROLINA

UNIVERSITY AT CHAPEL HILL

	1948		1949		1950		1951		1952	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Freshmen	7,603	100.00	7,419	100.00	6,864	100.00	5,773	100.00	5,474	100.00
Sophomore	1,360	17.9	1,193	16.1	1,160	16.9	1,058	18.3	1,304	23.8
Junior	1,615	21.3	1,839	24.8	1,625	23.7	1,059	18.4	1,023	18.7
Senior	1,651	21.7	1,125	15.2	1,056	15.4	990	17.1	809	14.8
Graduate School	1,399	18.4	1,464	19.7	1,240	18.0	1,039	18.0	887	16.2
Professional	982	12.9	1,175	15.8	1,156	16.9	1,056	18.3	844	15.4
Schools*	476	6.2	472	6.4	469	6.8	468	8.1	531	9.7
Special	120	1.6	151	2.0	158	2.3	103	1.8	76	1.4

* Excludes undergraduate Pharmacy and Nursing Students

STATE COLLEGE

	1948		1949		1950		1951		1952	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Freshmen	5,227	100.00	4,601	100.00	4,027	100.00	3,702	100.00	3,929	100.00
Sophomore	1,168	22.3	1,049	22.8	1,008	25.0	1,044	28.2	1,404	35.8
Junior	1,100	21.0	925	20.1	826	20.5	736	19.9	743	18.9
Senior	1,215	23.3	787	17.1	688	17.1	644	17.4	575	14.6
Graduate School	1,491	28.6	1,519	33.0	1,104	27.5	852	23.0	750	19.1
Fifth Year	236	4.5	281	6.1	348	8.6	344	9.3	345	8.8
Professional ..	0	0.0	0	0.0	3	0.1	33	0.9	28	0.7
Special	17	0.3	40	0.9	50	1.2	49	1.3	84	2.1

THE WOMAN'S COLLEGE

	1948		1949		1950		1951		1952	
	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.	No.	Pct.
Total	2,127	100.00	2,190	100.00	2,477	100.00	2,392	100.00	2,364	100.00
Freshmen	696	32.7	726	33.2	774	31.3	701	29.3	644	27.2
Sophomore	519	24.4	486	22.2	567	22.9	540	22.7	503	21.4
Junior	288	13.5	484	22.1	441	17.8	472	19.7	450	19.0
Senior	432	20.3	280	12.9	466	18.8	405	16.9	435	18.4
Commercial	128	6.0	121	5.5	150	6.1	181	7.7	226	9.6
Graduate School	9	0.4	25	1.1	31	1.3	41	1.7	42	1.9
Special	55	2.6	68	3.1	48	1.9	52	2.3	64	2.7

Veterans

As the figures below will indicate, the string has just about run out on World War II veterans. Some of the veterans presently enrolled, actually, are Ko-

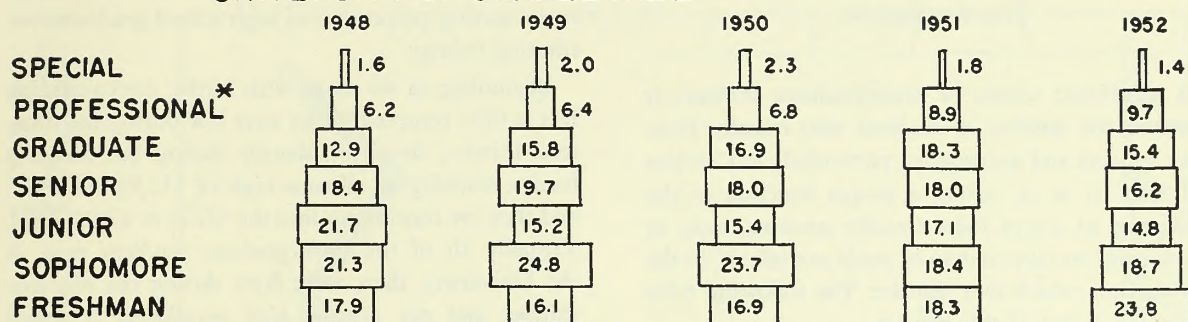
rean veterans, and we anticipate increased numbers of these veterans next year.

VETERAN ENROLLMENT, SEPTEMBER, 1948-52

	1948	1949	1950	1951	1952
UNC	4,331	3,394	2,418	1,516	1,079
N C S	3,536	2,430	1,477	863	465

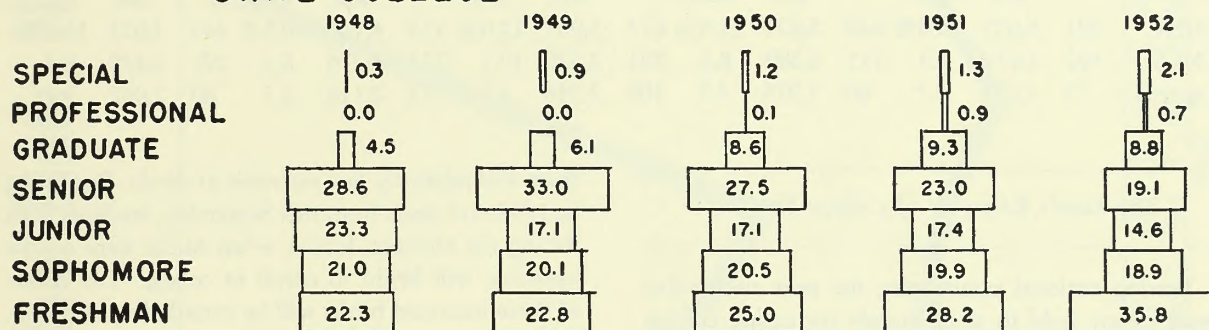
PERCENTAGE ENROLLMENT BY CLASSES, 1948-52

UNIVERSITY of CHAPEL HILL

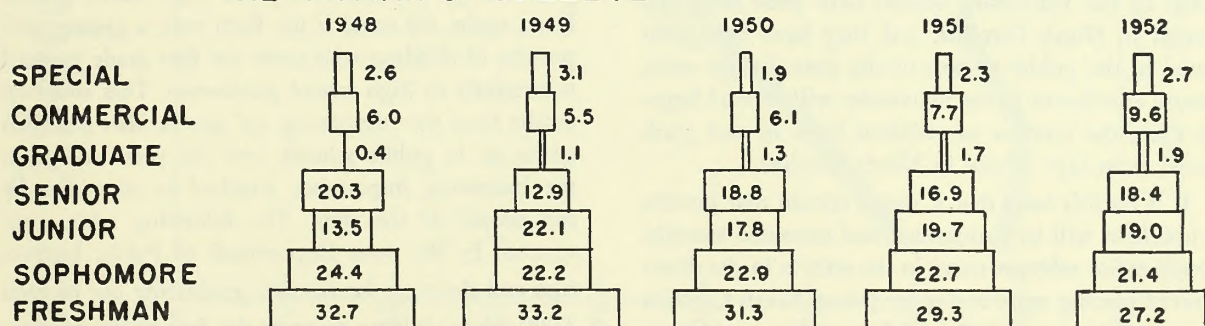


* Excludes Pharmacy and Nursing students

STATE COLLEGE



THE WOMAN'S COLLEGE



THE UNIVERSITY OF NORTH CAROLINA

Transfer Students

A significant source of undergraduate students is found in the number of students who transfer from other colleges and universities, particularly to Carolina and State. It is, of course, a proper function of the University to accept these transfer students, most of whom come to take courses of study not offered in the schools from which they transfer. The following table shows the extent of this process:

New Transfer Students, Three Units Of The University, Fall, 1948-52

	1948			1949			1950			1951			1952		
	New transfer	Total under-grad.	Pct. new trans.	New transfer	Total under-grad.	Pct. new trans.	New transfer	Total under-grad.	Pct. new trans.	New transfer	Total under-grad.	Pct. new trans.	New transfer	Total under-grad.	Pct. new trans.
UNC	891	6,025	14.8%	649	5,621	11.5%	612	5,081	12.0%	434	4,146	10.5%	449	4,023	11.2%
NCS	392	4,974	7.9	355	4,280	8.3	381	3,626	10.5	272	3,276	8.3	293	3,472	8.4
W C	71	1,935	3.7	88	1,976	4.5	103	2,248	4.6	74	2,118	3.5	80	2,032	3.9

The State's Reservoir of College Students

Barring national catastrophe, the next twenty-five years clearly hold in store sharply increasing college and university enrollments. So far as those of us who now are responsible for the University are concerned, one of our main jobs is planning ahead for these increased enrollments.

For the most part freshmen who enter the three units of the University System have been born and reared in North Carolina, and they have been educated in the public schools of the state. In the main, future enrollment in the University will depend largely upon the number of children born in and graduated from high school in North Carolina.

It is on this basis that it seems certain that present enrollment will be maintained and increased steadily. Every major relevant trend in the state is in the direction of placing more and more young North Carolina men and women in college. More children are entering school; an increasingly higher proportion of those

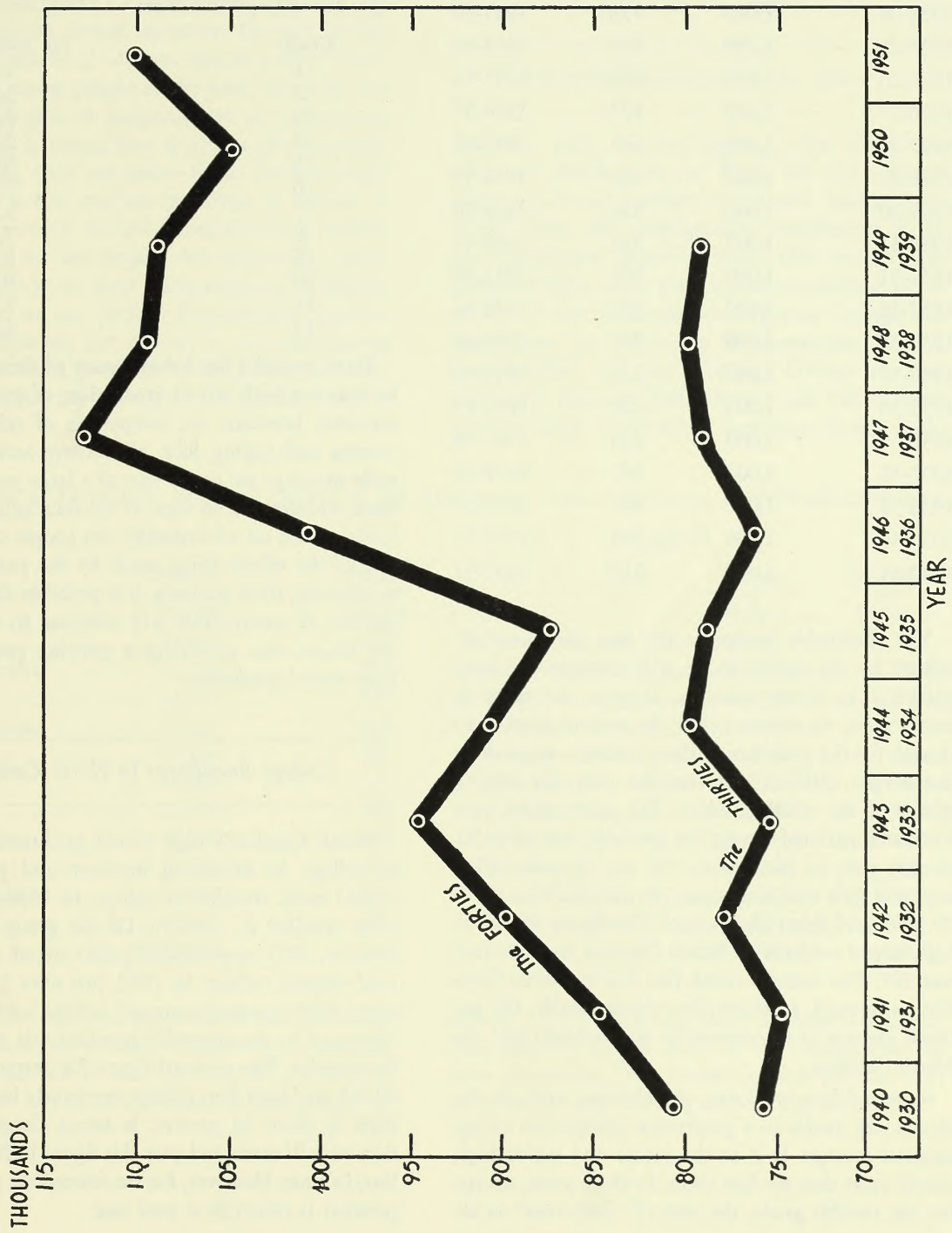
entering are graduating from high school; and, finally, an increasing proportion of high school graduates are entering college.

Beginning, as we must, with births, the overriding fact is this: recorded births were low during the nineteen thirties; they rose sharply during the nineteen forties, reaching an all time high of 112,877 in 1947, and they are continuing into the fifties at a high level. Virtually all of the undergraduate students now in the University, then, were born during the nineteen thirties, *and our present high enrollment is drawn*

from this relatively low reservoir of births. Beginning in 1958, five years from this September, students born during the nineteen forties, when births were on the upswing, will begin to enroll in college. The effects of these increased births will be cumulative, of course, as, indeed, the public schools are already finding out. The chart opposite reveals vividly the difference in recorded live births in the state between the nineteen thirties and the nineteen forties and early fifties.

Before our young people enter college, they must pass through the elementary and high school grades. Here, again, the trend is up. Each year, a greater proportion of children who enter the first grade proceed successfully to high school graduation. This situation results from the "tightening up" process that has been going on in public schools over the years and from the increasing importance attached to education by the people of the state. The following table, constructed by the State Department of Public Instruction and showing the number graduating out of each 1,000 white children to enter the first grade, presents the trend.

Decade Differences in Live Births, N. Carolina, 1930-1951



THE UNIVERSITY OF NORTH CAROLINA

Year Entering First Grade	Number	No. Graduating From High School	Year Graduating
1923-24	1,000	158	1933-34
1924-25	1,000	163	1934-35
1925-26	1,000	169	1935-36
1926-27	1,000	177	1936-37
1927-28	1,000	191	1937-38
1928-29	1,000	209	1938-39
1929-30	1,000	224	1939-40
1930-31	1,000	252	1940-41
1931-32	1,000	263	1941-42
1932-33	1,000	251	1942-43
1933-34	1,000	238	1943-44
1934-35	1,000	223	1944-45
1935-36	1,000	229	1946-47
1936-37	1,000	244	1947-48
1937-38	1,000	267	1948-49
1938-39	1,000	287	1949-50
1939-40	1,000	304	1950-51
1940-41	1,000	313	1951-52

The reasonable prospects are that the trend described by the figures above will continue for some years yet in North Carolina. Despite our gains in recent years, we remain below the national level, even though for the purposes of these statistics we exclude the Negro children and consider only the staying power of the white children. The most recent year for which national figures are available was 1949-50. In that year, in the nation, 336 out of every 1,000 boys and girls who had begun the first grade in 1938-39 graduated from high school. The figure for white high school students in North Carolina for that year was 287. The national trend, like that in North Carolina, is upward. I believe that, educationally, the national average is a conservative and realistic goal for North Carolina.

In actual fact, we bring our children through the elementary grades in a proportion comparable to the national average. It is in the junior and senior high school years that we lose them. In these years, except for the twelfth grade, the rate of "drop outs" is al-

most twice that of the earlier years, as the following table for 1949-50 indicates:

Grades	Pct. Drop Outs
1	4.5
2	3.1
3	2.8
4	2.7
5	3.0
6	3.7
7	5.3
8	7.1
9	9.8
10	9.6
11	7.7
12	4.3

Hard necessity lies behind many of these drop outs so near the high school graduation, of course. By all accounts, however, the temptation of relatively numerous cash-paying jobs, of military service and of early marriage are at the root of a large proportion of these withdrawals. In view of the increasing premium being placed on education by the people of the state, and of the efforts being made by the public schools at retaining these students, it is probable that the proportion of withdrawals will continue to decrease in the future, thus providing a growing proportion of high school graduates.

College Enrollment In North Carolina

North Carolina's high school graduates are going to college in increasing numbers and proportions. 27,421 were enrolled in college in 1938-39; 42,723 were enrolled in 1949-50. Of the group that graduated in 1951, approximately 300 out of every thousand entered college. In 1952, just over 330* out of every 1,000 graduates entered college last September. The map in the appendix provides this information by counties. The national figure for entrance of high school graduates into college apparently has stabilized itself at about 35 percent. It seems altogether likely that we will reach and pass this figure in North Carolina, in time. However, for the immediate present our position is relatively a poor one.

* These are close estimates provided by the State Department of Public Instruction.

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We may take pride in the steady advancement of education in North Carolina, from bottom to top. But we must not delude ourselves. The fact is that, despite our continued advance toward college education for the young people of the state, relatively few North Carolinians, in proportion to our population, attend college in comparison to almost all other states in the Nation. Only one state—South Carolina—had, in 1949-50, as few students in college in relation to its total population as had North Carolina. Indeed, our standing in this respect has slipped in recent years. In 1938-39 we were thirty-sixth in the Nation, as compared to our present forty-seventh position. We have obviously lost ground to our neighboring states in the South, to which we may fairly be compared. The following table gives this picture in more detail:

North Carolina that we want to keep pace with our region and the nation in this respect.

University Enrollments in the Future

Indeed, quite concrete signs of what the future holds are already with us. While all three schools accept significant numbers of transfer students, the critical point for undergraduate enrollment is the door where new freshmen enter. This year in September of 1952, there was a significant increase in the number of new freshmen entering State College; and applications for admissions for September 1953 at both Carolina and the Woman's College are well ahead of a year ago. The prospects are that all three units will have a substantial increment of new fresh-

Proportion of Population Attending College in the Southeastern States and Nation, 1938-39 and 1949-50

1938-39			1949-50		
State	Number of Students	Population per Student	State	Number of Students	Population per Student
Louisiana	21,983	108	Florida	39,517	70.1
South Carolina	16,550	115	Louisiana	35,410	75.8
Kentucky	23,441	121	Virginia	40,591	81.8
<i>North Carolina</i>	<i>27,421</i>	<i>130</i>	Arkansas	23,014	83.0
Virginia	19,493	137	Georgia	41,440	83.1
Florida	13,490	141	Tennessee	39,085	84.2
Tennessee	20,424	143	Alabama	35,508	86.2
Mississippi	15,190	144	Kentucky	33,576	87.7
Alabama	17,571	161	Mississippi	24,102	90.4
Georgia	19,321	162	<i>North Carolina</i>	<i>42,723</i>	<i>95.1</i>
Arkansas	10,773	181	South Carolina	21,624	97.9
Nation	1,220,616	108	Nation	2,486,219	60.6

Having come so far in education in even relatively few generations, we in North Carolina find ourselves, not at the end, but at the beginning of a new row, for I believe that it is the sense of the people of

men for 1953-54, and that these increments will continue annually to the limit of the resources of the three institutions. The following table presents data on new freshmen entering each of the three units.

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New Freshmen Entering The Three Units Of The University

Year	N C S		U N C		W C	
	New freshmen	Percent of undergraduate enrollment	New freshmen	Percent of undergraduate enrollment	New freshmen	Percent of undergraduate enrollment
1938	647	31.5	763	28.0	588	31.0
1939	773	34.1	878	28.8	698	34.3
1940	810	33.6	824	25.8	628	30.6
1948	884	17.8	1,008	16.6	670	34.5
1949	825	19.3	991	17.6	688	34.5
1950	803	22.1	989	19.5	751	33.2
1951	769	23.5	874	21.1	670	31.4
1952	1,096	31.6	870	21.6	613	30.0

Predicting future college enrollments nationally has been something of a favorite occupation with many college and university folk. In general there is agreement that, barring unforeseen events of great consequence, the college and university enrollment will double during the next generation. Some, even, predict this amount of growth during the next ten years. Special circumstances affect individual institutions, of course, and no doubt the pattern of increase will vary among our three institutions. In another year or two we will be able to predict with more certainty at each of our institutions. Speaking quite conservatively, however, I think that we may well expect an overall enrollment of at least 15,000 in the University within ten years, as compared with the present 11,767.

THE STUDENTS WE TEACH

It is always with humility and wonder that I examine the figures which tell us each year of the places from which our students come. To study this list is to read again the roll of our duties and responsibilities. For the origins of these students remind us again that they represent the best hopes and hard work of all of our people.

With particular reference to North Carolina, from where most of our students come, there are students in the University from every county in the state. The accompanying table and the map in the appendix indicate the number at each of the three institutions from each of the counties.

STUDENTS BY COUNTIES, IN THE CONSOLIDATED UNIVERSITY, FALL, 1952

<i>Counties</i>	<i>U N C</i>	<i>N C S</i>	<i>W C</i>	<i>Total</i>
Alamance	118	51	49	218
Alexander	3	4	12	19
Alleghany	6	7	6	19
Anson	18	14	17	49
Ashe	4	8	6	18
Avery	5	5	5	15
Beaufort	29	25	10	64
Bertie	15	9	9	33
Bladen	18	23	6	47
Brunswick	3	14	5	22
Buncombe	154	91	77	322
Burke	46	25	15	86
Cabarrus	54	47	23	124
Caldwell	24	21	19	64
Camden	3	2	2	7
Carteret	19	17	7	43
Caswell	8	14	11	33
Catawba	61	45	22	128
Chatham	34	22	14	70
Cherokee	5	4	4	13
Chowan	11	7	1	19
Clay	—	1	2	3
Cleveland	45	59	29	133
Columbus	26	37	7	70
Craven	26	18	9	53
Cumberland	70	54	46	170
Currituck	1	4	3	8

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<i>Counties</i>	<i>U N C</i>	<i>N C S</i>	<i>W C</i>	<i>Total</i>	<i>Counties</i>	<i>U N C</i>	<i>N C S</i>	<i>W C</i>	<i>Total</i>
Dare	5	5	2	12	Person	19	20	6	45
Davidson	74	57	45	176	Pitt	39	43	7	89
Davie	7	10	4	21	Polk	13	15	6	34
Duplin	27	28	15	70	Randolph	28	27	27	82
Durham	195	57	38	290	Richmond	27	30	15	72
Edgecombe	50	32	10	92	Robeson	57	33	25	115
Forsyth	241	115	112	468	Rockingham	59	33	51	143
Franklin	14	25	5	44	Rowan	51	79	28	158
Gaston	79	60	51	190	Rutherford	29	36	17	82
Gates	5	3	2	10	Sampson	27	30	22	79
Graham	3	4	4	11	Scotland	12	11	4	27
Granville	19	33	19	71	Stanly	37	31	33	101
Greene	8	12	3	23	Stokes	6	9	6	21
Guilford	308	129	312	749	Surry	46	47	30	123
Halifax	35	38	22	95	Swain	3	4	3	10
Harnett	47	32	18	97	Transylvania	6	12	8	26
Haywood	23	31	19	73	Tyrrell	5	1	3	9
Henderson	28	26	17	71	Union	27	29	17	73
Hertford	25	7	4	36	Vance	29	25	17	71
Hoke	9	10	3	22	Wake	250	338	77	665
Hyde	2	6	—	8	Warren	11	16	10	37
Iredell	53	55	36	144	Washington	10	11	1	22
Jackson	8	4	—	12	Watauga	7	9	6	22
Johnston	84	62	32	178	Wayne	58	64	30	151
Jones	6	5	1	12	Wilkes	14	14	22	50
Lee	31	19	10	60	Wilson	48	40	25	113
Lenoir	39	39	17	95	Yadkin	13	19	21	53
Lincoln	27	13	11	51	Yancey	3	3	1	7
McDowell	11	16	5	32					
Macon	10	13	8	31	Total	3,962	3,015	2,075	9,052
Madison	8	8	4	20					
Martin	20	9	10	39					
Mecklenburg	252	148	153	553					
Mitchell	2	1	—	3					
Montgomery	18	17	6	41					
Moore	45	31	21	97					
Nash	48	62	31	141					
New Hanover	91	43	33	167					
Northampton	19	14	7	40					
Onslow	29	12	11	52					
Orange	183	26	19	228					
Pamlico	4	8	—	12					
Pasquotank	20	14	9	43					
Pender	5	15	9	29					
Perquimans	5	4	3	12					

Who are these students? We do not know as much as we would like, and it will be one of our next jobs to learn more about them and to make this information a part of our daily operations. Some studies conducted during the past year at the Woman's College and at State College offer a few significant facts concerning the freshmen students who entered in September of 1952.

At the Woman's College very close to seventy per cent of the freshmen who entered in September of 1952 came from towns and cities. (Actually, almost one-third came from the larger cities of over 50,000 population.) The remaining non-urban thirty per cent were about equally divided between those com-

ing from farms and those coming from homes on the fringe of towns and cities and in the open country. The educational background of the parents of these students is of particular interest. Of the parents to this same group of entering freshmen, 29.0 per cent of the fathers and 22.5 per cent of the mothers were college graduates. On the other hand, somewhat similar proportions of the parents had not graduated from high school, 26.8 per cent of the fathers and 19.2 per cent of the mothers. All of the remainder of the parents—about fifty per cent—graduated from high school and some attended but did not graduate from college. Some fifty-five percent of the breadwinners in the homes of these freshmen at the Woman's College were in the managerial and professional categories; significantly, eight per cent of the breadwinners were craftsman and foremen, and another 4.1 percent were employed as operatives in industrial plants.

We may note both some differences and similarities between State College and the Woman's College. Considerably fewer of the entering freshmen at State came from towns and cities, 53.0 per cent to be exact. Of the remainder, 27.9 per cent came from farm homes.

A study at Chapel Hill during the past year revealed two very interesting facts. First, about eighty per cent of the students come from towns and cities. And, second, over forty per cent of the students come from homes in which the annual income was \$5,000 a year or less.

Of the numerous implications inherent in these figures, I want to stress two. There is, first, the obvious fact that the University is receiving young men and women from all parts of the state, from high and low, rural, urban, and from the places in between, from the sea to the mountains. The people of North Carolina have gone a long way toward their goal of making education available to all who desire and work toward it. Secondly, the tremendous range and variety of our student bodies is a major factor in our educational plans and policies. Large scale higher education contains the paradox, that the larger and more varied the student bodies, the more vital becomes the necessity for teaching and counseling the individual student.

NORTH CAROLINA STUDENTS

As the state university, our first responsibility is to the young men and women of North Carolina. Best estimates indicate that in the Fall of 1952, very close to 27,000 young white North Carolinians were enrolled in junior and senior colleges and in universities in the state. Of that number slightly over 9,000 were enrolled in the three units of the University. We are providing education, then, for close to one-third of the North Carolina students who attend colleges and universities located in North Carolina.

As indicated by reports made by high school principals to the State Department of Public Instruction, about 8,000 graduates of the state's high schools in June of 1952 entered college in September of 1952. Of this number, almost exactly one-fourth entered the University. So long as they are qualified, natives of the state, of course, have entrance priority in all three units.

In the Fall of 1952, 11,767 students were enrolled in the University. Of these, 9,052 were natives of North Carolina, a percentage of 76.9. The North Carolina enrollment by units was as follows:

	Total Enrollment	Number from North Carolina	Percent from North Carolina
UNC	5,474	3,962	72.4
NCS	3,929	3,015	79.2
WC	2,364	2,075	87.7

We are adhering to the regulation of the Board of Trustees, adopted on May 25, 1953, with respect to the admission of out-of-state students. That regulation directs that for a period of two years beginning in September of 1953, "the number of out-of-state students admitted to any *campus* of the University of North Carolina, in any quarter or semester, shall not exceed 15 per cent of the total undergraduate students admitted to that branch of the University during that quarter." The Trustees further directed that out-of-state students born in North Carolina or one of whose parents was born in North Carolina, or who attended one of the three institutions of the University, shall not be counted in the out-of-state 15 per cent. Fur-

ther, the regulation provides that college graduates and foreign students shall not be counted in the out-of-state quota.

THE PREPARATION OF ENTERING FRESHMEN

The academic preparation of freshmen for college and university work is a crucial matter to each of the three institutions. A large part of the undergraduate programs of the first two years, at least, must be cast in terms of the general capacity of our entering students, and must take into account the range of this preparation from those best prepared to those least well prepared. Even more fundamentally, the quality of work that may be expected from the students throughout their college careers is related to their preparation at the time of entrance. And, as we consider this problem of preparation, we uncover vital issues related to the University's position as the state university and as a partner of the public school system.

Assessment of the preparation of entering freshmen is not an easy job, nor a completely certain one at best; in particular, we must speak in general terms about large groups of students, rather than with reference to individuals. We currently employ three measures of this preparation. There is, first, the general impression of our faculties, cumulative impressions based upon daily classroom experience with freshmen over the years. There is, also, the performance of freshmen at the time of their entrance on various aptitude and subject matter placement tests. And there is, lastly, the number of students who enter without having had certain high school courses that are normally required for entrance.

Taken together, these three measures indicate rather clearly that the general level of our entering freshmen is somewhat below that which is taken as the usual or normal level in the Nation. I hasten to add that we have many very well prepared students, and many more whose preparation is quite adequate by any standards. But we also have a large number whose preparation, in one way or another, does not meet generally accepted national norms.

The Faculty's Impression

Our faculties are drawn from a wide variety of colleges and universities, as well as from our own three institutions. Their impressions of the academic preparation of the freshmen whom they meet daily in class, while not in quantitative form, are based on a rather good collective knowledge of national standards. With no dissent that I have heard, the faculties feel that the entering freshmen, as a group, are not as well prepared for college work as would be normally expected. In particular, the faculties find many students ill-prepared in certain tool subjects, such as English composition, elementary mathematics, and ability to read with adequate speed and comprehension. These deficiencies contribute in part to the more general fact that a large portion of the freshmen are not "on their toes" academically. They are not interested in doing excellent work, they do not respond to challenging discussion and questions, they do not search out basic facts and issues. Taken as a whole, the entering freshmen are too passive intellectually. The faculties feel that too much of the teaching is cast at an elementary level, to the detriment of the better prepared students.

Placement Tests

Now, as regards the several aptitude and placement tests given to virtually all entering freshmen. Each of the three units gives certain tests for its own uses. All three, however, use one form or another of the Cooperative English Test and the American Council on Education Psychological Test. The test in English is designed to measure preparation in grammar, spelling, vocabulary, effectiveness of expression and in reading ability and comprehension. The Psychological Test is designed to measure general aptitude for college work. The following tables present the results of the tests given at the three institutions to entering freshmen in September of 1952.

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UNIVERSITY AT CHAPEL HILL

Cooperative English Test

UNC	National
Lowest 25 percent equaled the lowest 10 percent	
Lowest 50 percent equaled the lowest 29 percent	
Lowest 75 percent equaled the lowest 55 percent	

A. C. E. Psychological Test

Lowest 25 percent equaled the lowest 19 percent
Lowest 50 percent equaled the lowest 38 percent
Lowest 75 percent equaled the lowest 67 percent

THE WOMAN'S COLLEGE

Cooperative English Test

WC	National
Lowest 25 percent equaled the lowest 21 percent	
Lowest 50 percent equaled the lowest 40 percent	
Lowest 75 percent equaled the lowest 62 percent	

A. C. E. Psychological Test

Lowest 25 percent equaled lowest 22 percent
Lowest 50 percent equaled lowest 39 percent
Lowest 75 percent equaled lowest 62 percent

STATE COLLEGE

Cooperative English Test

NCS	National
Lowest 25 percent equaled the lowest 4 percent	
Lowest 50 percent equaled the lowest 15 percent	
Lowest 75 percent equaled the lowest 38 percent	

A. C. E. Psychological Test

NCS	National
Lowest 25 percent equaled the lowest 6 percent	
Lowest 50 percent equaled the lowest 29 percent	
Lowest 75 percent equaled the lowest 42 percent	

It is proper to make several cautionary remarks with reference to the interpretation of these tests. The national norms are derived from the combined scores of a number of institutions throughout the nation. Inspection of the list of schools from whose scores the national norms are constructed indicates that, on the whole, these schools are probably more selective academically of entering students than are our three institutions. Many of these schools, for instance, admit students only from the upper portions of the high school graduating classes. By definition, then, their students are expected to be somewhat better prepared than the students entering the University. Similarly, undoubtedly a large part of the students nationally have had the benefit of a ten-months school year. Further, these tests have been standardized on a national basis, and may not, therefore, be as applicable as they might in certain respects to students from a state so rural and semi-rural as North Carolina.

Taking into account all of these factors, however, the faculties find that these scores indicate a residue of inadequate preparation. In plain terms, students scoring low on the English test cannot handle elementary English Grammar; and students scoring low on the mathematics test cannot do work in elementary algebra. The Psychological Test has no subject matter equivalent, of course, but when a low score is made on that and on one or more of the subject matter tests, this is good indication that the student is badly prepared for college.

Determination of what constitutes an unsatisfactory score on the placement tests is made separately at each of the three institutions. The following table shows the number of students at the three units in

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1952-53 whose scores were deemed unsatisfactory so far as being prepared to do college work is concerned:

	English		Mathematics	
	Number	Percent of Entering Freshmen	Number	Percent of Entering Freshmen
UNC	208	23.9	220	25.3
WC	68	11.1	*	
NCS	314	28.3	448	40.6

All of these students were enrolled in appropriate remedial courses—courses designed to bring them as fast as possible to the college level of performance in these subjects. With the exception of mathematics at the University in Chapel Hill, credit is not given for these remedial courses, though at each of the three institutions students who do excellent work in the remedial English work are allowed credit for the regular first term of freshman English.

Course Deficiencies

There is a third, though somewhat different, measure of the preparation of our entering freshmen. A rather large number, apparently well prepared otherwise, enter without having had in high school certain courses that are normally required for entrance. In September of 1952, for instance, 185 freshmen entered the University in Chapel Hill with deficiencies in one or more subjects; 67 entered in the same fashion at the Woman's College; and 592 at State College. The State College figure was 54 percent of the total entering group at that school. Year in and year out, the greatest number of deficiencies are in mathematics, particularly in plane geometry, which is required at all three of the schools, and in solid geometry, which is required for beginning engineering students at State College. After mathematics, the deficiencies are next greatest in foreign language.

* No mathematics placement given at the Woman's College.

The University's Responsibility

This condition of inadequate preparation on the part of many of our entering freshmen presents several fundamental matters of educational policy to administration and faculty alike. On these matters we must consult our responsibilities as the state university and as a part of the state supported educational system. These responsibilities are several, and superficially are somewhat contradictory.

As the state university we are charged with providing authentic college and university education; without specific instructions from the trustees, we have no right to provide education that is below generally accepted standards. To do so would be to deprive the young men and women of the state of the type of education which will equip them for equal opportunity in the modern world; and it would deprive the state of a resource for which it is paying. Our responsibility here is comparable, I feel, to that of a court, which must proceed within the spirit and letter of the law. In particular, just as the high schools set goals for the elementary grades, so we must, in the same spirit, provide reasonable and authentic goals for that part of the work of the high schools designed to equip students for entrance into college. This function devolves upon the University as part of the development of public education in the state.

On the other hand, as the state university and as part of the public school system, we ought not to deny any young man or woman of college ability the chance to earn a college education. Specifically, it is not fair or reasonable to penalize a student who has not had the opportunity to secure adequate preparation for college. The size, quality, and curricular range of the high schools in the state vary greatly. Roughly, thirty percent of the high schools do not teach plane geometry and foreign language, both courses that are required for entrance at one or more of the three units. Many high schools, properly for their circumstances, emphasize vocational rather than college preparatory courses. Many young men and women, of great native ability, are not as well prepared as they

might be by virtue of family and community situations. The state university does not shut its doors to these students.

Our situation, then, is this: we must insist, as a minimum, on generally accepted college and university standards for work by our students; we feel that we should, at the same time, admit many students who are not fully prepared to measure up immediately to these standards. There exists, therefore, for many students a gap between their expected and their actual preparation. We feel that it is our duty to provide such students with the opportunity to fill this gap. This is the purpose of the remedial courses previously mentioned for students whose scores on placement tests were low. There are also remedial or make up courses for those students who are admitted with high school subject matter deficiencies.

Up to the limit of our resources, we admit virtually all graduates of North Carolina high schools; within limits, those who are not properly prepared are given the opportunity to make up their deficiencies. If our policy in this matter is correct, its effectiveness is closely tied to the fact that credit toward graduation is not given for these remedial courses. At first glance this may appear to be a matter of academic quibbling. Actually, it is the practical key to the whole situation. If we allow credit for remedial courses, then in a short time these courses may become the standard of our freshman work generally. And, similarly, by allowing credit for this work, we fail to set the proper goals for college preparatory work in the high schools of the state.

This is not an easy policy to implement. It leaves some burden on the student, who must sometime during his college career make up at least one course. It presents difficulties in both administration and teaching. Undoubtedly it discourages some students from entering one of the three units. Despite all of these drawbacks, I am yet to be persuaded that we should not stand our ground on this matter.

The University is not alone concerned with this question. Each year between one-fourth and one-third of the North Carolina high school graduates who go to college enter one of the three units of the University. Most of the remaining students enter other colleges and universities in the state. I believe that this

whole question is a proper one for the consideration of the North Carolina College Conference. More uniformity than now exists appears desirable from the point of view of the state as a whole.

The University and The Public Schools

Because of their fundamental importance in the life of the state and in the work of the University, I have emphasized the inadequacies in the preparation of many of our entering freshmen. These facts should be put on the record. It is also part of the record that between sixty and seventy percent of our students are either adequately or very well prepared for college work at the time they enroll. These students obviously have had good schooling, and reflect the year by year progress in our public school system.

The University is necessarily concerned with the public school system. The faculties have stated it this way: "Public education from Graduate School to Kindergarten is *one* . . . Doctors, lawyers, engineers cannot be produced without adequate primary schools in the first place; no adequate primary schools can exist without well-trained teachers and administrators. All is interrelated. Our thinking must be adjusted to this over-all concept."* Having this viewpoint, we in the University clearly must take a major responsibility for the fact that so large a proportion of our entering students are not as well prepared as is desirable.

The faculties were rather plain-spoken on this subject. "The University system has lost contact and rapport with the elementary and secondary schools . . . The University, *by default*, has created a vacuum *which will be filled* . . . Meantime we scold the lower schools, persist in our aloofness, and wonder where our students and influences have gone." The faculties found no difficulty in making a list of the reasons within the University that have contributed to this situation. Over all such specific reasons brood the words "*by default*." Whatever our sins of commis-

* This and succeeding references to recommendations of the faculties are from the Proceedings of the First State of the University Conference.

sion, those of omission are predominant here. The faculties followed up their analysis of the present situation with recommendations that

The Schools of Education and subject-matter departments reach better understandings and pool their efforts to supply teachers, services and materials for the lower schools.

Socially minded, superior students be guided into teaching, with intelligent placement, follow-up and replacement as growth takes place.

Regular staff members in pertinent University departments be freed to teach from time to time in off-campus centers and to work with teachers on the job, thus taking the campus to the school and bringing the school problems back to the campus to leaven the campus courses.

Pamphlets be produced by the faculties to be used by the public school teachers of the state in solving critical problems such as the improvement of reading, intelligent guidance, or school government.

Kinescopes, films, slides, recordings, etc., be produced in appropriate subject matter areas for use in the elementary and secondary schools.

Institutes, clinics and demonstrations be arranged for the service of teachers.

Subject matter departments report the grades of students to the high schools from which the student comes.

A committee be appointed from members of the three faculties and charged with the task of studying in cooperation with the State Department of Public Instruction the problems of teacher education and certification.

A State Wide Testing Program

As a way of further emphasizing our increasing awareness of obligations to the public schools, I would like to report to you on our efforts to be of assistance to the State Department of Public Instruction in establishing a state wide testing program in the public schools. These efforts began prior to Dr. Clyde Erwin's untimely death, when the Educational Testing Service and the College Entrance Examination Board showed interest in establishing a state wide program of testing students at several levels in the public schools on their educational progress. In the beginning, there was good reason to think that a

national foundation would provide the bulk of the money necessary to establish the program and carry it for several years. This may still be the case. Several meetings were held among the interested parties at Chapel Hill, and plans were going forward rather well at the time of Dr. Erwin's death. Superintendent Carroll has showed considerable interest in the proposal.

The advantages of such a program to both the public schools and to the University are many. The progress of the children in the schools could be measured on a state wide basis; and the progress of North Carolina children could be compared to that of other students in the Nation. So far as the University is concerned, the tests given in the high school years would serve as guides to students and parents in preparing for college, so that many of the inadequacies and deficiencies could be removed before entrance. Our admissions officers, while not using the tests as sole criteria for admission, would be in a better position to advise applicants.

Tests, of course, are only one measure of capacity and knowledge. They must always be used in connection with other factors. At the same time, I am increasingly impressed with the fact that we in North Carolina must, as a general rule, seek to meet national standards in education, as in industry, agriculture and business, taking these national standards to be the minimum of our aspirations.

UNDERGRADUATE INSTRUCTION

It is correct to report, I believe, that the greatest amount of common interest in the University is collected around the matter of undergraduate instruction. In considerable degree, we are all of the opinion that we can do better. The faculties, taking this matter quite seriously, are restless and impatient. Simply, they want to bring teacher, student and subject matter together in an experience that provides the student with growth and stimulation, and the teacher with personal and professional satisfaction. And they want to do this consistently for the great mass of students who have the capacity to be a part of this experience.

The Problem

To understand the problem faced by the faculties, and to see it whole, it is necessary to resort again to the perspective of the recent historical development of the three institutions. They have grown from small to large institutions. The base of student preparation and motivation has, properly, broadened almost beyond all hopes and expectations. Because of growth and wartime conditions, large numbers of new faculty members have been employed, and expansion in numbers and subject matter has tended to departmentalize the faculties. The range, complexity and size of University activities have all increased tremendously. The University, in short, has grown in the same way that virtually all of our industries, businesses, cities and schools have grown. In this changing, large scale context it has been difficult to maintain that student-teacher relationship through which real learning flourishes.

This is not merely hindsight. President Chase, writing in 1921 on the eve of the University's growth, said that "A very large university with this inclusiveness about it tends, unless careful thought is taken, to become a labyrinth through which a student wanders with no guiding thread. . ." All of the presidents and chancellors since that time have wrestled, not without success, with this problem. And we share this problem in the present with all other large institutions in the land. President Griswold of Yale, who spoke to us in March, 1953, described like difficulties at his more compact and better endowed institution.

That we are dissatisfied with the general job that we are doing in undergraduate instruction does not mean that there is not a great deal of good and excel-

lent teaching going on in the University. Such teaching being an act of faith in the future as well as the performance of professional duties, it would be unfair to fail to point out that many members of the faculties are most successful teachers by any standards. I agree with the faculties that "any one generalization of praise or reproach is too simple. There is much fine achievement but it is uneven and there is clearly room for improvement."*

I would go a little further, and say that this is a positive problem, not a negative one: the instances of bad teaching that have come to my notice are few. Our job is to achieve a consistently high level of instruction and student-teacher relationship for the great mass of our students. This may very well be an essentially new job, one faced by all institutions of higher education, and one requiring both initiative and stamina.

Measures of Performance

Aside from general impressions, we are embarrassed by a lack of measures of the success of our undergraduate instruction. We will move toward remedying this deficiency in the near future. Such crude measures as we have at present indicate, again, that we must cast our nets wider and tend them better. We lose too many students at Chapel Hill and Raleigh by default. The following table reveals the mortality through their college careers of the freshmen who entered the three institutions in September of 1948.

* From the Proceedings of the First State of the University Conference.

	UNC	NCS Number	WC	UNC Pct of	NCS Entering	WC Freshmen
NEW FRESHMEN	930	951	670	100.0	100.0	100.0
Dropped Out During First Year	222	252	155	23.9	26.5	23.0
Dropped Out During Second Year	125	190	76	13.4	20.0	11.5
Dropped Out During Third Year	87	82	31	9.4	8.7	4.6
Dropped Out During Fourth Year	57	15	0	6.1	1.6	0
Total Dropped Out	491	539	262	52.8	56.8	39.1
Total Graduated in Four Years or Less	379	252	400	40.7	26.5	59.7
Total Graduating at End of Fifth Year	60	124	8	6.5	13.0	1.2

The number and proportion of withdrawals at State College is quite high; and withdrawals are higher than is desirable at the University in Chapel Hill. These conclusions are confirmed by comparison with other colleges and universities in the nation. The survival rates at Greensboro present a much less serious problem.

Particularly in these times of military service it is not expected that survival rates at State and the University in Chapel Hill will be as high as at the Woman's College. Also more often than women, young men are forced to quit school to go to work to meet a family necessity, and, of course, many young men receiving excellent instruction and doing well in their work leave school out of personal inclination. In addition, of course, greater numbers of the Carolina and State freshmen are ill prepared for college work than at the Woman's College.

When all of this is taken into account, however, there remains a large number of students who drop out of school through academic lassitude and lack of encouragement—students who, so far as entrance tests and high school records are concerned, are capable of achieving a college degree. I am particularly concerned about the number of withdrawals during the first two years. The rate during 1948-50 at Carolina was 37.3%, and 46.5% at State College. A study recently completed showed that during 1950-52, this rate at Carolina was 48.0 per cent. To a considerable degree, college and university are places for testing, where young men and women are expected to learn to stand on their own feet. We are agreed, however, that during the first two years, at least, our students require attention and help appropriate to the fact that they are developing from boys and girls into men and women.

There are some further indications that many of the students who remain in school are not being as well prepared as they might be. At Chapel Hill, for instance, we have received two reports during the past year that have given us some concern. These reports have to do with our students who have sought entrance to law and medical schools. These students took national legal and medical aptitude tests in company with many thousands of students from schools over the nation. In both cases, the average

of our students was significantly below the national average. In both cases, also, the average of our students was below that of students from institutions with which we may fairly be compared.

Encouraging Good Teaching

On each of the three campuses there is currently in progress fundamental reconsideration of at least part of the instructional programs. I am glad to report this because it is in many ways the most encouraging and healthful sign in the entire University. It is my intention to turn a major share of my time in the future to the support of the Provost, Chancellors, Deans and Department Chairmen as they move positively to encourage excellent teaching throughout all three units of the University.

In doing so, I am aware of the fact that there are factors inherent in the university world which make it difficult to encourage extra teaching effort, particularly in the first two years of college and university work. For the most part, personal satisfaction, professional status, and promotion in rank and pay normally are more closely related to research and writing than to excellent teaching. To discover new truth and to make it available is one of the prime functions of the University. Many individuals find that this type of work improves their teaching. These activities are to be encouraged, not penalized. But we must move vigorously to remove the penalties from the man who wants to bring all of his energies to bear on his teaching. He, too, must be permitted to join his personal satisfaction with professional status and promotion. The faculties have recommended this and I concur heartily.*

Student Advising and Counseling

The problem of undergraduate instruction is not confined, of course, to the classroom. It is part and

* From the Proceedings of the First State of the University Conference.

parcel of the student's adjustment to the new world into which he has entered.

This problem, as are most other problems with which we are concerned, is closely connected with the growth in enrollments and variety of students in each of the three institutions. Size makes difficult the close identification of the student with the school, with more than a few of his fellow members of the student body, and with the faculty. At each of the three institutions there are special officers and organizations dealing daily with student affairs and problems, in an effort to aid the student in his or her adjustment, and to preserve reasonable order. Especially at Chapel Hill and Raleigh, the conditions of war and military service have made this job exceedingly difficult.

I believe that there are in prospect improvements in this area of our work, particularly at Chapel Hill and Raleigh where they are needed most. Our student bodies are becoming more normal; our housing conditions, temporarily at least, have been improved; and we are moving at both institutions to effect some changes in organization and procedures.

LIBERAL EDUCATION

In accepting something of the responsibility of a parent, we in the University concern ourselves with the whole student, having in mind that we are dealing with young people who, almost in a twinkling, will be depended upon to give leadership in the life of the state. The faculties are seeking ways to be assured that they are training young men and women of whom it may truly be said that they are educated for democratic life in the mid-twentieth century. The faculties agreed emphatically at their conference in March of 1952, that young people must "' know not only how to work, but also how to *live*, how to *think*, and how to *feel*.'"^{*}

In even more concrete terms, the faculties desire to certify as graduates those who can be expected to develop into mature, perceptive citizens, capable of meeting on even terms and unafraid the uncertain

forces of the world in which they will live. I would suggest that the most important symbol of the world in which our students will live and work is this: In the lifetime of most of us who now have responsibility for the University, the Wright brothers flew the first airplane a few tremulous seconds before a handful of Outer Banks spectators; and now, today, we travel faster than sound. The countless changes for which this development is a symbol have touched and moved every family, every community, every county in North Carolina. We would not undo these changes if we could. But we must now learn to live with them. Even as we seek to keep pace in industry and agriculture, we are asking, who will convert the new into stable, wholesome family life, who will stand steady in community life, who will define values and separate the wheat from the chaff among the countless goals that appear before us?

The faculties do not take this whole job on themselves, of course. The young men and women in their classes have already learned much; they will learn more after they leave. But, for their part, the faculties have no intention of passing on a narrow range of facts as the total of college education. They are unwilling, for instance, to turn out any specialist who is unaware of the wholeness of knowledge and, therefore, of the wholeness of life; nor a school teacher who does not know of the importance of the family and community life from which his or her students come; nor an accountant who has not had the enriching experience of literature and poetry; nor a scientist who is unwilling to claim kinship with all who have quested after the unknown.

These are not necessarily new objectives in the life of the University. They are in fact the core of what we in America have commonly called liberal education. It is this liberal education that has served us so well throughout our history by truly liberating the mind and spirit in the responsible, questioning setting of the academic community, where, as Chancellor House has so aptly said, there is ". . . an atmosphere more responsive to wisdom, justice, and mercy than is to be found outside the college." In the development of state and nation, this process by which "persons of varying ideas and purposes have an opportunity to rub rough places off each other" has

^{*} From the Proceedings of the First State of the University Conference.

been a resource comparable to our great continent and its treasure of natural resources. Valuable in the past, liberal education is indispensable in the present day of challenges to democracy.

The present concern of the faculties for preserving the essential elements of a liberal education is not unfounded. Though it was the general base of higher education in America in earlier years, liberal education has had rough going in the face of demands placed upon colleges and universities for specialized education in the last generation. For the individual student, specialized education is education for making a living; for the state and nation, it is training young people in the basic knowledge and techniques required to keep our tremendously complex society in operation. These demands may well be carried to excess, as the present concern for liberal education indicates. But, in some form and fashion, they are established as valid claims on higher education, and must be met. The faculties, then, are seeking ways and means, within the present limits of the academic program, of providing the student with both types of education.

Our Approaches to Liberal Education

As a beginning we may think of liberal education under our present conditions as a range of courses that is balanced among the three main divisions of subject matter: the humanities, the social sciences and the natural sciences. Taking this as a start, and bearing in mind that the student's classroom time is "the scarcest resource in the University," the faculties are immediately plunged into debate over what courses and in what proportions.

This is a debate that is academic in name only, for inevitably, to reach decisions, the faculties must establish in their own minds the nature and needs of modern life. The basic questions in their debates, therefore, are the same ones that are puzzling all perceptive and responsible citizens who do not look upon the present and future with complete complacency. If, as citizens, we are concerned about the violence being done many old values, the faculties are debating

courses in history, philosophy, in literature and the arts. If we are concerned over upsets in family and community life, the faculties are debating courses on marriage and the family, on the nature and problems of rural and urban communities. If we are concerned over the less than optimum political participation by the average citizen, the faculties are debating courses in government and the political process. If we are in almost superstitious ignorance of the nature and control of modern science, the faculties are debating courses which will provide the student with the beginnings of poise and perspective on this great new force in modern life. If we view with anxiety the struggles between ideologies, the faculties are seeking ways of giving the students opportunities to know, to think and to debate these ideologies. If we are seeking better ways of using our resources, natural and human, the faculties are debating courses on natural resources, mental and physical hygiene, and population.

Addressing themselves to these problems, bringing to bear all of the rich variety of their training and experience, the faculties in their daily consideration of these problems constitute a forum for our larger society—a democratic forum of discussion, debate, and trial and error. Life will hardly permit any final, unanimous conclusion on these matters. The debate should never be stilled, for it is a vital resource of state and nation. Its responsibility must always be measured, however, by the recurring image of the individual student in the process of education. The student requires a positive program, and the faculties' debate must never end ineffectually, in compromise at the lowest common denominator.

The faculties find, also, that a liberal education program is something more than a balanced range of courses. Properly, they must include in their deliberations the matter of basic courses, for they have agreed that superficial acquaintance with a wide range of subject matter is no more liberal education than is a narrow mastery of techniques and skills. At the same time, there appear to be areas in which inter-disciplinary courses, cutting across several disciplines, not only serve the student's limited classroom time well, but also actually increase his understanding for being inter-disciplinary. There is, also, the persisting prob-

lem of encouraging the individual instructor to endow, wherever appropriate, his subject matter with relevance to other courses and to the world in which we live.

Organization for Liberal Education

Inevitably, the faculties approach the problem in terms of the purposes of each of the three units and of existing curricular organization. At State College, programs of instruction are organized on the basis of the scientific and agricultural schools. The entering freshman goes directly into the school of his choice, taking in his first year courses in his major program instruction. The main problem at State, then, is to insure that the student will receive also work in the humanities and social sciences. For this purpose the Departments of English, Economics, History and Political Science, Modern Languages, Philosophy and Religion, Physical Education, Social Studies, and Sociology are organized into the School of General Studies. All students at State College are required to take courses from the School of General Studies, the requirements varying among the professional schools. In addition to disciplinary courses, faculties of the School of General Studies have worked out special cooperative courses at the request of a number of the professional schools.

At the University in Chapel Hill, the situation is somewhat different. The original base at Carolina was the liberal arts program. To this, over the years, has been added increased amounts of specialization in disciplinary fields, in pre-professional work and in professional work, all largely in the junior and senior years. The areas of specialization are in all three of the major academic divisions, the social sciences, the humanities and the natural sciences. Carolina must, therefore, be sure that students receive instruction in all these divisions.

To accommodate this situation, there was established at the University in 1935 the General College, embracing the freshman and sophomore years. The curriculum in the General College is designed to provide the student with training in certain tool sub-

jects, such as English composition; and, fundamentally, to enroll him in courses that will give him a broad view of the several fields of knowledge. In addition, during the last two years when the student normally specializes, he is required to take a substantial number of courses outside of his major field.

The arrangements at the Woman's College resemble those at the University in Chapel Hill. While there is no General College at Greensboro, the curriculum of the first two years performs essentially the same function and is generally similar to that of the General College at the University. And, in the last two years, the student is required to take a program of work that is balanced with respect to the major divisions.

Recent Steps

During recent years a number of steps have been taken at each of the three institutions to strengthen the liberal education programs. Perhaps the most ambitious of these new developments is presently underway at the Woman's College. There, in 1950, Chancellor Graham invited the faculty to review the entire curricular program, with the object of providing "the sort of liberal education which will develop within the individual human being—to the limit of her resources—the ability to make sound value judgments." Working as a committee of the whole, the faculty of the Woman's College adopted a statement of overall objectives in December of 1951. At this time, the faculty authorized the working out of a number of new courses, to be given on an experimental basis, which might advance the program of liberal education. As its deliberations progressed, the faculty found that more detailed and systematic evaluation of present courses was required. To meet this need, a committee on evaluation was established in April of 1952. Supported by funds from the Committee on Self-Studies of the Fund for the Advancement of Education of the Ford Foundation, this committee has been actively at work during the past year, and its work is largely completed.

At both of the other institutions, somewhat more modest programs of re-examination and change have

been started. At the University in Chapel Hill, a revised curriculum for the General College was adopted early in 1952 and made effective for freshmen entering in September of 1952. The main effect of this revision was to increase the number of elective courses open to freshmen and sophomores, and to allow some courses of a professional nature to be taken in the sophomore year. A number of faculty members, supported by foundation grants, have been able to take time off for travel and study of courses in American government, mathematics and general social science.

At State College, six members of the staff of the School of General Studies are currently engaged in an evaluation of the effectiveness of the courses given in that school. The Fund for the Advancement of Education is also supporting this program.

To Preserve Liberal Education

Our success in providing liberal education for our students in the future must be taken, I believe, as a main measure of our maturity under new conditions, and as a measure of the essential unity of purpose of our faculty and administrative people. In this sense, our liberal education program is comparable to the development, for instance, of our graduate program as a measure of sound, basic progress.

There is no longer any good reason to be altogether naive about the difficulties involved in preserving and maintaining such a program. Our experience, and that of most other institutions, particularly since World War II, clearly indicates a number of obstacles and hazards that are inherent in the organization of higher educational institutions. The demands of specialized courses are always compelling, particularly in light of the fact that departments and schools have the responsibility of certifying their graduates as competent in their particular areas of knowledge. At the same time, assessment of the need for many proposed specialized courses is often a highly technical and professional matter.

More general, but perhaps even more fundamental among the difficulties, is the fact that the scholar's

consuming interest in his subject is the very heart beat of academic excellence, integrity and advancement. The true scholar, I am convinced, will inevitably demand a sound liberal education program. But it is difficult to engage *and keep* his interest year in and year out. In particular, the employment of faculty to teach in courses that cover more than one discipline presents problems to individuals and to the institutions. Many of our younger faculty people have great interest in these courses but think, often, that their professional advancement will be hurt by spending time on such courses.

Two things are clear, in our present situation of size and complexity. First, some degree of formal administrative arrangements are necessary to insure a sound liberal education program for all of our students. Second, such administrative arrangements will not suffice in and of themselves. The administrative arrangements must be infused with continuing support from the disciplines and schools. While this infusion is a general responsibility of the faculty, the immediate and crucial responsibility rests upon deans of colleges and schools, department heads and other senior and authoritative faculty members. These are the core of the academic community, upon whose actions must depend any general program of action in any field. These administrative and faculty people must bring, annually, a renewal of objective examination of curriculum, having in mind the welfare of the student. Without their cooperation, administrative arrangements will fail. Without their specific encouragement, individual faculty members will, understandably, be unlikely to take a persisting interest in the liberal education program of their particular institution.

*GRADUATE AND PROFESSIONAL
TRAINING*

Growth and Expansion

Training beyond the usual four-year baccalaureate degree has had a great growth since the Second World War, and there is good reason to expect this

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growth to continue. In certain areas of work, such as Education, some sort of post-graduate work is now the minimum, rather than the maximum, educational qualification for personal success and advancement. Demand by the general public for such things as increased medical and agricultural services is enlarging enrollment in these fields. National security is desperately demanding the training of young men and women in basic science. Prospects of greatly increased college enrollments during the next generation require the training of college and university teachers in greater numbers. These are samples of the factors that are causing more and more college graduates to seek out graduate and professional training. The simple truth is, of course, that our complex civilization is requiring more and more training at higher levels.

Expansion in this postgraduate area appears to be one of the logical next steps in the development of education in North Carolina. In recent times we have moved to make, first, elementary, then secondary, then higher education more available to those young people of the state who desire it. In similar fashion, we are expanding the opportunities for advanced degrees.

The following table of enrollments in our graduate and professional schools from 1948 to 1952 reveals the tremendous part that this type of training has come to play in the University:

AT CHAPEL HILL	Sept. 1948	Sept. 1949	Sept. 1950	Sept. 1951	Sept. 1952
Graduate School	982	1,175	1,156	1,056	844
Medicine	122	119	117	116	167
Dentistry			40	75	118
Law	288	280	253	221	180
Special Professional	56	73	59	56	65
Total	1,458	1,647	1,625	1,524	1,375

At Chapel Hill:

Anthropology

Art

Bacteriology

City and Regional Planning

Comparative Linguistics
(Curriculum in)

Comparative Literature

AT RALEIGH

Graduate School	236	281	348	344	345
Total	236	281	348	344	345

AT GREENSBORO

Graduate School	9	25	31	41	42
Total	9	25	31	41	42
Grand Total	1,703	1,953	2,004	1,909	1,762

It will be noted that the high year for total enrollment was 1950. Decline from that peak has been 11.3 per cent, considerably less than the undergraduate decline. Actually only the Graduate School and the Law School at Chapel Hill have showed a decline from the post-war peak, and both these remain well above the pre-war averages.

More significant, perhaps, than the enrollment is the fact that at Chapel Hill, exclusive of Law and Medicine, over half of the graduate degrees awarded by that institution have been awarded since 1945: 474 of 920 Ph. D. degrees, and 2,587 of 4,817 Master's degrees. When it is considered, for instance, that a Master of Arts degree was awarded in Classics in 1883, and a Ph. D. in Chemistry in the same year, then this post-war performance is truly remarkable.

Nor has this growth been merely a matter of numbers. The range of offerings has been greatly increased. The following degrees have been either awarded for the first time, or have been authorized, since 1945:

Ph. D.

Master of Arts

Master of Arts in Creative Art

Master of Science

Master of Regional Planning

Ph. D.

Ph. D.

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Dentistry

D. D. S.

Master of Science in Orthodontics

Master of Science in Pedodontics

Master of Orthodontics

Master of Pedodontics

Economics and Business

Master of Business Administration

Education

Doctor of Education

Master of Education (re-authorized)

Industrial Relations

Ph. D.

(Curriculum in)

Master of Science

Library Science

Master of Science in Library Science

Master of School Librarianship

Medicine

Doctor of Medicine

Music

Master of Music

Pathology

Master of Science

Pharmacology

Master of Science

Pharmacy

Ph. D.

Public Health

Master of Science in Public Health Nursing

Social Work

Master of Social Work

Statistics

Ph. D.

Master of Arts

At Greensboro:

Business Education

Master of Education

Creative Arts

Master of Fine Arts

Writing

Painting

Music Composition

Dance

Education

Master of Education

English

Master of Education

Physical Education

Master of Education

At Raleigh:

Agriculture

Master of Agriculture

Animal Husbandry

Ph. D.

Animal Industry

Ph. D.

Animal Physiology

Ph. D.

Ceramic Engineering

Ph. D.

Chemical Engineering

Ph. D.

Electrical Engineering

Ph. D.

Engineering Physics

Ph. D.

Engineering Mathematics

Master of Science

Forestry

Ph. D.

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At Raleigh (Continued):

Genetics

Industrial Engineering

Industrial Psychology

Nuclear Engineering

Occupational Information and Guidance

Wood Technology

The rapid growth of advanced degree programs, and the future prospects for continued growth, have added what amounts to a new dimension to the University. Quite aside from the numbers of students involved, each new degree program adds an integral, complex unit to the University. As I will elaborate later, these programs have a quite specific and vital importance in the future life of the state. Within the University the development of these programs has raised, and continues to raise, a number of fundamental educational issues among the faculties and administrative people.

Distinction Between Academic and Professional Programs

Because, then, of the major importance of this area of our work, I would like to list below the advanced degrees now awarded within the University. I am listing these degrees under the headings "Professional" and "Academic." This listing conforms to a basic substantive division in the total picture of post-baccalaureate programs in the University: professional training, on the one hand, and academic graduate training, on the other hand. While a few of the professional programs are organized separately from the Graduate School, such as the Schools of Law and Medicine at Chapel Hill, this division is not always reflected organizationally. There are a large number of professional degree programs administered within the Graduate School alongside the academic graduate programs. This situation has merit, for in most of these cases largely identical faculties will teach both the professional and academic graduate programs. A good example of this is found in the

Ph. D.

Master of Science

Master of Science

Master of Science

Ph. D.

Master of Science

Master of Science

Master of Science

School of Education at Chapel Hill, where the Doctor of Education, a professional degree for administrative people in public education, is taught by essentially the same faculty that provides instruction in the Doctor of Philosophy in Education, an academic degree.

It is essential to understand that this division is fundamentally a matter of the goal of the student, and of the main emphasis on the part of the faculty. Those graduate programs whose final end is the Doctor of Philosophy degree in a particular subject area, such as English or Physics, constitute the academic graduate programs; the other programs are essentially professional programs. To illuminate the distinction between the two, I would like to quote part of a sentence from a book sponsored by the National Manpower Council. The sentence deals specifically with graduate training in physics, but it serves for a general distinction: ". . . the work of most professionals is directed toward providing services, while the work of most scientists is the discovery of ideas." Another distinction commonly made is to say that professional training is the first major step in the application of knowledge; academic graduate training the first major step in the mastery and extension of knowledge. I hasten to add that many professional people discover ideas and extend knowledge. Not all people with academic training, by any means, discover ideas; indeed, many achieve their greatest success in teaching and applying knowledge. But despite all of the crossing over and mutual relationships, the distinction is an important one in both the daily and long range operation of the University, and in the life of the state. We must nourish both the professional and the academic graduate programs. The list of graduate and professional degree programs follows:

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AT CHAPEL HILL

DEPARTMENT OR SCHOOL	ACADEMIC	PROFESSIONAL
Anatomy	Master of Arts Master of Science	
Art	Master of Arts	Master of Arts in Creative Art
Bacteriology	Master of Science	
Biochemistry	Ph. D. Master of Science	
Botany	Ph. D. Master of Arts	
Chemistry	Ph. D. Master of Science	
City and Regional Planning		Master of Regional Planning
Classics	Ph. D. Master of Arts	
Comparative Linguistics (Curriculum in)	Ph. D. Master of Arts	
Comparative Literature	Ph. D. Master of Arts	
Dramatic Art	Master of Arts	
Economics and Business	Ph. D. Master of Arts Master of Science	Master of Business Administration
Education	Ph. D. Master of Arts in Education	Doctor of Education Master of Education
Education, Physical	Master of Arts in Education	Master of Education
English	Ph. D. Master of Arts	
Folklore (Curriculum in)	Master of Arts	
Geology and Geography	Ph. D. Master of Science	
Germanic Languages	Ph. D. Master of Arts	
History	Ph. D. Master of Arts	
Industrial Relations (Curriculum in)	Ph. D. Master of Science	
Library Science		Master of Science in Library Science Master of School Librarianship
Mathematics	Ph. D. Master of Arts	
Music	Ph. D. Master of Arts	Master of Music

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(At Chapel Hill—Cont.)

DEPARTMENT OR SCHOOL	ACADEMIC	PROFESSIONAL
Personnel Administration (Curriculum in)	Master of Science	
Pharmacology	Master of Science	
Pharmacy	Ph. D.	
	Master of Arts	
Philosophy	Ph. D.	
	Master of Arts	
Physics	Ph. D.	
	Master of Science	
Physiology	Ph. D.	
	Master of Science	
Political Science	Ph. D.	
	Master of Arts	
Psychology	Ph. D.	
	Master of Arts	
Public Health	Ph. D.	Doctor of Public Health Master of Science in Public Health Master of Science in Sanitary Engineering Master of Public Health
Romance Languages	Ph. D.	
	Master of Arts	
Social Work	Ph. D.	Master of Social Work
	Master of Science in Social Work	
Sociology and Anthropology	Ph. D.	
	Master of Arts	
Statistics	Ph. D.	
	Master of Science	
Zoology	Ph. D.	
	Master of Arts	
Law		Doctor of Law Bachelor of Law
Medicine		Doctor of Medicine

AT GREENSBORO

Business Education	Master of Science Master of Science in Business Education Master of Education Master of Fine Arts
Creative Arts	
Writing	
Painting	
Music Composition	
Dance	

THE PRESIDENT'S REPORT, 1948-53

(At Greensboro—Cont.)

DEPARTMENT OR SCHOOL	ACADEMIC	PROFESSIONAL
Education	Master of Arts	Master of Education
English		Master of Education
Home Economics	Master of Science	Master of Science in Home Economics
Physical Education		Master of Education

AT RALEIGH

<i>School of Agriculture</i>		
Agricultural Economics	Master of Science in Agricultural Economics Ph. D. in Agricultural Economics	Master of Agriculture
Agricultural Engineering	Master of Science in Agricultural Engineering	Master of Agricultural Economics Master of Agricultural Engineering
Agronomy	Master of Science in Agronomy Ph. D. in Agronomy	Master of Agronomy
Animal Industry	Master of Science in Animal Nutrition Master of Science in Dairy Manufacturing Master of Science in Dairy Husbandry Master of Science in Animal Husbandry Master of Science in Animal Physiology Ph. D. in Animal Industry Ph. D. in Animal Nutrition Ph. D. in Dairy Manufacturing Ph. D. in Dairy Husbandry Ph. D. in Animal Husbandry Ph. D. in Animal Physiology	Master of Animal Industry Master of Dairy Manufacturing
Botany	Master of Science in Botany Master of Science in Plant Ecology Master of Science in Plant Physiology Ph. D. in Plant Ecology Ph. D. in Plant Physiology	
Chemistry	Master of Science in Agricultural and Biological Chemistry	
Entomology (Faculty in Division of Biological Sciences)	Master of Science in Entomology Ph. D. in Entomology	
Experimental Statistics	Master of Science in Experimental Statistics	Master of Experimental Statistics

THE UNIVERSITY OF NORTH CAROLINA

(At Raleigh, School of
Agriculture—Cont.)

DEPARTMENT OR SCHOOL	ACADEMIC	PROFESSIONAL
Genetics (Faculty in Division of Biological Sciences)	Ph. D. in Experimental Statistics Master of Science in Genetics	
Horticulture	Ph. D. in Genetics	
Plant Pathology (Faculty in Division of Biological Sciences)	Master of Science in Horticulture Master of Science in Plant Pathology	Master of Horticulture
Poultry Science	Ph. D. in Plant Pathology Master of Science in Poultry Science	Master of Poultry Science
Rural Sociology	Master of Science in Rural Sociology	Master of Rural Sociology
Zoology	Ph. D. in Rural Sociology Master of Science in Animal Ecology Master of Science in Wildlife Conservation & Management Ph. D. in Animal Ecology Ph. D. in Wildlife Conservation & Management	
<i>School of Education</i>		
Agricultural Education	Master of Science in Agricultural Education	Master of Agricultural Education
Industrial Arts Education	Master of Science in Industrial Arts Education	Master of Industrial Arts Education
Industrial Education	Master of Science in Industrial Education	Master of Industrial Education
Industrial Psychology	Master of Science in Industrial Psychology	
Occupational Information & Guidance	Master of Science in Occupational Information & Guidance	Master of Occupational Information & Guidance
<i>School of Engineering</i>		
Ceramic Engineering	Master of Science in Ceramic Engineering	
Chemical Engineering	Ph. D. in Ceramic Engineering Master of Science in Chemical Engineering	
Civil Engineering	Ph. D. in Chemical Engineering Master of Science in Civil Engineering	
Diesel Engineering	Master of Science in Diesel Engineering	

THE PRESIDENT'S REPORT, 1948-53

(At Raleigh, School of
Engineering—Cont.)

DEPARTMENT OR SCHOOL	ACADEMIC	PROFESSIONAL
Electrical Engineering	Master of Science in Electrical Engineering Ph. D. in Electrical Engineering	
Engineering Mathematics	Master of Science in Engineering Mathematics	
Engineering Mechanics	Master of Science in Engineering Mechanics	
Physics	Master of Science in Engineering Physics Master of Science in Nuclear Engineering Ph. D. in Engineering Physics Ph. D. in Nuclear Engineering	
Geology	Master of Science in Geological Engineering	
Industrial Engineering	Master of Science in Industrial Engineering	
Mechanical Engineering	Master of Science in Mechanical Engineering	
<i>School of Forestry</i>	Master of Science in Forestry Master of Science in Wood Technology Ph. D. in Forestry Ph. D. in Wood Technology	Master of Forestry Master of Wood Technology
<i>School of Textiles</i>	Master of Science in Textile Chemistry Master of Science in Textile Manufacturing	

The Academic Graduate Programs

Academic graduate programs consist of courses of instruction; of graduate students of considerable intellectual capacity; of a faculty capable of teaching the courses and guiding the students; and of research activities and resources. These constituent elements of an academic graduate program are neither luxuries, nor adornments, nor mere quantitative additions to a college program. It is their presence that takes an institution over the line from college to university.

When this line is crossed, an entirely new type of educational institution is created. To establish a graduate program in any particular area is to assert two things:

first, that facilities in teaching personnel and equipment have been established to teach students at the highest levels of knowledge, and

second, that the members of the graduate faculty, with the materials at hand, are capable of assessing authentically new knowledge in their field and of moving themselves into the discovery of new knowledge.

The academic graduate programs, then, are at the very heart of university. Not exclusively, but primarily, in these programs is nurtured and preserved that spirit of intellectual inquiry, questing and integrity that has been so vital to the development of Western Civilization and American democracy.

The mastery and discovery of knowledge are universal. As well as being places of discovery of knowledge, our graduate programs are also our open doors to knowledge and thought wherever originated. Neither the University nor the state can afford to close the doors to the mainstream of knowledge, thought and creative effort in the fast changing world in which we live. Indeed, we must be at pains to understand the almost immeasurable importance of these graduate programs in the life of the University and of the state, for, like many fundamental matters, this importance is often obscured.

Value of Graduate Programs

As I study this area of work, I am led to the conclusion that no money spent by the State of North Carolina is capable of bringing in as great a *proportionate* return as that spent on the graduate programs.

I would like to indicate how this is true. Within the University itself, a graduate program is one very strong leverage in securing an excellent undergraduate teaching program. Many excellent teachers will prefer to be part of an authentic graduate and research department, just as other excellent teachers will want to work in an institution where the one major emphasis is on teaching. It seems true in general that instructing graduate students and engaging in research are essential elements in good undergraduate teaching for many faculty people. For good or ill, the national reputation of departments is largely based upon the graduate and research activities, so that the cumulative effect of reinforcing these activities is powerful when men of exceptional ability are sought by the University. Graduate training programs make available mature graduate students for undergraduate teaching; this may be abused, but if handled properly it is a great asset to the University, and is a matter of some money saving to the State.

Many of these graduate students stay on after their work is finished to become members of the faculties. A recent analysis of all of those students who, between 1920 and 1950, were part-time instructors at Chapel Hill revealed that one-eighth of them stayed on to become faculty members. There is danger always of too much in-breeding, but the continuity of institutional spirit and loyalty is strengthened and many of our best faculty people have been secured in this way. This type of recruitment of the faculty will be of increasing importance in the future, for with the prospective increases in college and university enrollment, the demand for teachers and researchers will be generally greater than the supply. This fact is well known in the sciences, where industry and government are placing heavy demands upon personnel in these fields. It is no less true in the social sciences and the humanities, as a number of recent studies have shown.

Nor is the University alone concerned with this matter of training prospective college and university teachers within the state. Our graduate programs constitute one of the most convenient and likely resources for staffing the many colleges in the state. A report by the Chemistry Department at Chapel Hill, for instance, revealed that in 1952-53, Ph. D. graduates from that department were teaching at Davidson College, Elon College, Guilford College, Lenoir-Rhyne College, Queens College, Salem College, and Wake Forest College; and that M. S. graduates were teaching at Davidson College, High Point College, and Queens College.

In Service to the State

Our many professional programs simply could not exist without the graduate programs. The Medical School depends heavily upon a number of the sciences; the same faculty in the School of Education teaches both the professional and graduate curricula. The examples are almost endless. The main point is that the graduate programs are of basic importance to virtually all of the professional programs that are of such benefit to the people of the state.

It is true, also, though seldom mentioned, that the extended services which the University supplies directly to the state—in agriculture, science, education, public and social service, and in many other areas—proceed largely from the work in basic graduate programs in educational institutions. The graduate programs within the University, in effect, stand behind these extended services, vouching for their authenticity and integrity.

There is a multitude of places where this connection is direct and specific. I would illustrate with an example that has already been put on record for another purpose by a distinguished faculty member. Dr. Robert E. Coker of the University at Chapel Hill, speaking in 1952 of the work of the Institute of Fisheries Research, described the discovery by the Institute "... of certain facts about the distribution of the brown-spotted shrimp. Availing themselves of the knowledge gained, not by chance, but only through years of laborious research by patient, persistent and skilled biologists, the Department of Conservation and Development changed certain regulations. We are told by practical-minded shrimpers that this action of the Department, based upon the results of the Institute's scientific research, increased their income during two years by half-a-million dollars."

I want to emphasize Dr. Coker's words "laborious research by patient, persistent and skilled biologists." I want to add that a first condition for their discovery of profitable facts about the brown-spotted shrimp was basic graduate training in the biological and related sciences, and a desire to increase scientific knowledge. In this connection, one more short passage from Dr. Coker should be quoted, as setting the proper tone of the relationship between graduate training and research, on the one hand, and service to the state, on the other:

I referred, a few minutes ago, to the sagacity of the fishermen. There is a lot to that word. It means judging wisely from known facts and, perhaps in part, from inspired "hunches"; but "hunches" are based upon knowledge, which may be in the subconscious. I have the greatest respect for the sagacity of experienced and intelligent fishermen. The fishery biologist who does not listen attentively to the words of fishermen is missing a great opportunity for gaining infor-

mation. The good fishermen have had educational advantages in the hard school of practical experience, educational advantages that are not to be gotten in the college or in the laboratory.

On the other hand, the trained biologist and oceanographer has access to facts and techniques that cannot be gained in the everyday school of experience on a fishing boat at sea. There are two distinct approaches to an understanding of the movements of fishes and the conditions that govern them—approaches that do not conflict but are supplementary to each other. The need is to keep fisherman and scientist together, working in full sympathy for a common end. Let each listen to the other and help each other to complete the task for which each is best fitted.

The training of the young people of the state in advanced knowledge and skills, exciting their imagination, encouraging them to discover new facts and make new applications—all of this has a particular relevance to current efforts to attract new industry to the state and to upbuild agriculture and other parts of our economy. Once again our economy is in an age of exploration—exploration and use of the new world of science—and the main resource of this age is the trained human brain and imagination. A current report from the Chemistry Department at Chapel Hill reveals that "... the new DuPont plant at Kinston, N. C., already has employed one of our recent Ph. D.'s and has made offers to several others. It is certain that many of our graduates will be employed there in the future. The American Enka Corporation is expanding its research activities greatly; they now employ three of our doctor's people and have recently employed three more of our students who will receive their doctor's degree this year . . . Two of our Ph. D.'s are employed at R. J. Reynolds' Research Laboratories in Winston-Salem, and one at Liggett and Myers in Durham."

Virtually all industries are adding research facilities. It is reliably estimated, for instance, that 1,000 major industrial research laboratories will be added in the South during the next ten years. North Carolina must keep apace of these developments. More important than this, perhaps, is the potential for the local development of industries by young men and women equipped to compete in the knowledge and skills of the modern world. This relation is not al-

ways directly visible, but it is there. We may inventory the material and human resources of North Carolina forever, but until the spark of basic knowledge is added, and the whole put to work, we will make no significant advances. We may see our graduate programs and the closely associated professional programs, then, as broadening streams of young people equipped to move ahead personally in the modern world, and in doing so, to contribute to the total welfare of North Carolina.

Industry and agriculture and trade are not alone concerned, for the life of North Carolina is considerably more than the production of goods and the growing of crops. From graduate training come our teachers and scholars, and many of our creative workers, in art and literature, history, folklore, in religion and philosophy, in the study of social relations, and in the ideology and practice of democracy. And then, more apparent and measurable, there are the practitioners from our professional schools—whose training and general education will yield, good or bad, a mighty influence in the state in the coming half-century.

Graduate Students

For the future, then, capable graduate students occupy a particularly vital place in our plans and hopes. We must provide opportunities for the young of North Carolina to pursue graduate work, and encourage them to do so, for their own personal success and for the contribution they are likely to make to the welfare of the state.

We must train young people from other states also, not only so that our young people can go elsewhere for training which we do not provide, but because we may well keep some of these people within the state. I would emphasize this point, for the University and the state have gained much from students who have come to us from other states. Of the M. A. and Ph. D. graduates of the Chemistry Department at Chapel Hill mentioned in the preceding section as teaching and working in industry in North Carolina, exactly one-half are natives of other states. As another

example of what is involved here I would cite the recent accomplishments of a graduate student in Plant Pathology at State College. The student is a native of Rhode Island. As part of his graduate work, he solved a problem that was seriously retarding the study and prevention of Granville Wilt, a bacterial disease affecting tobacco, tomato, and Irish potato plants. His contribution was in discovering a method whereby the Granville Wilt bacterium could be kept in a highly parasitic state in laboratory and greenhouse conditions. This discovery enabled researchers to infect plants with the disease in the greenhouses, rather than in the fields, thereby speeding up the process of study greatly. Through merit, this young man has been added to the State College teaching and research staff.

As a financial matter, also, out-of-state students help to pay the capital costs of the graduate programs, which are often high. We never, of course, turn away qualified in-state students. In 1952-53, 41.7 percent of the graduate students, exclusive of the Schools of Law and Medicine, at Carolina were from out of state; 55.0 percent at State College; and 25.1 percent at Woman's College. Year in and year out, a few more young North Carolinians normally go outside of the state for graduate training than come in from other states. Our facilities do not exceed the North Carolina demand.

For graduate study, the premium on personal ability is high. Entry into graduate work normally indicates unusual interest in subject matter. Both lack of inclination and lack of ability are highly selective factors, so that the number of applicants for admission to the graduate schools is relatively small. The nature of graduate study is also a selective factor. It is a long and rigorous road, requiring, if not dedication, at least unusual application and sustained effort. The graduate student, actually, is only part student; he is increasingly an apprentice to the faculty members, and not infrequently a co-worker. He must, in the final analysis, show both perseverance and subject mastery. Financially, this is a time of self denial, or postponement, and for young people in their twenties, this is not an easy way to take.

It is not surprising, therefore, that there is a shortage of adequate and excellent graduate students

throughout the nation. Competition for them among the universities is lively. This is a national competition, for the mobility of graduate students is virtually unlimited. The day is past when proximity is of any particular regard to a good graduate student; he applies for and receives scholarships, fellowships and assistantships anywhere in the nation. He chooses his school by general reputation and prestige, by the standing of the department in which he is going to study, and in many cases by the amount and conditions of monetary help offered him.

Our general reputation is good; and, individually, many of our graduate departments have good, even excellent, reputations. But we have fallen behind with respect to financial aid to graduate students. Thus, for instance, the Physics Department at the University at Chapel Hill last spring lost three excellent students to whom it had offered assistantships amounting to \$1,000.00 net. One student went to the University of Illinois for \$1,350.00 net and promise of remunerative summer work in his field; another to Princeton for \$1,000.00 net and summer work; and a third to Cornell for \$1,200.00 net and the certainty of summer employment. These same three students might well have applied to Georgia Tech for graduate assistantships ranging from \$1,000.00 to \$1,500.00 or research assistantships at \$1,500.00; or to the University of Florida ". . . where teaching assistantships carry a stipend of \$1,200.00 for the nine months of the academic year." These are conservative rather than extreme illustrations: one of our \$1,800.00 assistantships, paid by the Institute for Research in Social Science out of trust funds, was turned down last year because of a better offer. Or, again, the National Science Foundation fellowship is \$1,500.00 net and is without service obligations on the part of the student. With respect to stipends for research assistantships, State College is in a somewhat better position than the University at Chapel Hill, partly because the Federal Government contributes matching funds. Even so, State College cannot compete consistently for superior students.

The special point that requires emphasis is that we not only remain in an inferior position to the handful of extremely wealthy private and public universities: overall we are losing ground relative

to a new host of private and public institutions who have seized the opportunities in this field and have rapidly expanded both their offerings and their aid to graduate students. In the Southeast and Southwest the University at Chapel Hill is third to the Universities of Oklahoma and Texas in the per cent of its enrollment that is in the graduate category. Less than one percentage point separates the University at Chapel Hill from the Universities of South Carolina, Maryland, and Tennessee. With respect to graduate fellowships, both the University and State College rank well down the list of southern state universities and land grant colleges.

As valuable, therefore, as graduate students are to the University, there is involved here a competition for limited and generally valuable human resources, resources that, in the next fifty years, may well be critical in the development of the state. Both the state and the friends of the University are urged strongly to make it possible for us to increase in significant ways the number and money value of our graduate fellowships.

Basic Issues in Graduate and Professional Training

Part of the report on graduate and professional training must necessarily include some reference to the several basic educational issues being raised by the growth of this type of training, particularly that of professional education.

One of the major and most general issues has to do with the balance between undergraduate and postgraduate activities within the University. Many of the faculty and friends of the three units, especially at Chapel Hill and Raleigh, have registered the fear that emphasis upon postgraduate work would cause a decrease in emphasis upon the undergraduate student, in and out of the classroom. This is not an idle fear, and may well have been validated in some isolated cases. Certainly it reflects a problem about which all large universities have expressed concern. When handled properly, graduate programs have positive contributions to make to the undergraduate programs; it is not necessary, therefore, to accept the

apparently plausible course of looking to the establishment of undergraduate and graduate programs in separate institutions. Moreover, by common agreement some of the very best undergraduate instruction in the land is to be had in many of the largest universities. So far as our institutions are concerned, I have already mentioned in some detail the renewed and prevailing interest on the part of the faculties and administrative people in improving undergraduate instruction and the total development of the student during his college career. To maintain a proper balance of emphasis between the two areas of work is a part of the larger problem of maintaining and improving undergraduate instruction under the enlarged conditions of modern higher education. I believe that we are beginning to deal with this problem.

As another main issue, the recent rapid growth of professional degree programs has emphasized the perennial question of the relative importance of professional and academic graduate programs in the total structure and resources of the University. This is something of a continuation of the issues that cluster around liberal education and occupational training on the undergraduate level. By and large, there are two main parts to this issue.

There is, first, the question of relative emphasis, with particular reference to the allocation of present resources and the securing of additional resources in the future. Allowing for some exceptions, it is generally easier to secure funds to establish a professional program; indeed, such funds have actually been thrust upon us from time to time. Our position as a state university clearly calls for us to meet the needs in this field. The concern expressed in many quarters over the possibility of too much expansion in the professional field proceeds from the fact that, at any given time, our resources are relatively set and inflexible. Similarly, a degree program, professional or academic, with its associated buildings, faculties and activities, becomes relatively fixed and permanent. So long as our resources enable us to maintain both the professional programs and the academic programs at a good level, then the issue is relatively minor. But, should our resources remain stationary against increasing costs generally, and against specific expansion

in the professional field, or should our resources actually be decreased, then there is a real danger that the basic academic programs will suffer. I do not dismiss this danger.

In our present situation, our policy is to move positively in strengthening the basic academic programs in faculty and resources, giving certain of these programs first priority in our requests to foundations, the Legislature and to individuals. In doing so, I join with the faculties of these programs in accepting the hard challenge of achieving excellence in these fields and of placing their value beyond any possible jeopardy. At the same time, we will not now discourage initiative in the professional fields, where the need is demonstrable and the responsibility clearly that of the state university. Should we be faced with contracting resources, then we will take whatever actions may be necessary to preserve the academic programs as the core of the University.

The second main question that appears around the issue of balance between the professional and academic graduate degrees is primarily of an academic nature. It has to do with specific content and nature of professional degree programs.

In this connection a number of cautions and objections are commonly raised to the expansion of professional degree programs. One is that certain of the professional degree programs are too narrowly vocational, and that they offer work which is not properly university work. Another is that some of these programs may be in effect watered down versions of academic programs, designed to fit the convenience of a lowest common denominator of students rather than to meet high professional standards. Another is that professional programs may be established before the principles of application are sufficiently explicit and reliable for use by a person untrained in the basic knowledge underlying the application. And, overall, there is the fear that the main emphasis in thinking and planning may come to rest on professional rather than academic fields.

These are all matters of continuing debate at all levels of university life. I do not have the feeling that we have achieved a workable formula for deriving the proper balance between professional and academic work, or for properly evaluating the authentic-

ity of proposed professional programs, or for establishing the worth of specific academic programs in the University. I am hopeful that in the near future the Provost and Chancellors can open up some systematic discussion of these issues; and that the faculties at one of their State of the University Conferences can take this whole matter under consideration.

Research

During the year 1952-53, the three units of the University spent \$3,927,974.16 on organized research, as follows:

	Total	State Appropriation
U N C	\$1,025,850.52	\$ 155,596.40
NCS	2,898,640.00	1,468,581.00
W C	3,483.64	None

There are several main facts to be noted in connection with these figures. The University received from other than state funds almost sixty percent of the money spent on research activities. Second, of the \$1,624,177.40 appropriated by the Legislature for organized research, \$1,307,690.00 went to the Agricultural Experiment Station at State College. The remainder, \$316,487.40, went to established research agencies* at State and Carolina, where it was used primarily to pay basic salary and administrative costs of these agencies, which received almost all of their research funds from other than state sources. I think that it is important to note that, aside from the Experiment Station funds, \$2,620,284.16 was spent on organized research, of which only \$316,487.40 was appropriated by the Legislature. By and large, the state research dollar is multiplied by a high ratio of research funds from other sources. It is our faculty

* The Institute for Fisheries Research, the Institute for Research in Social Science, membership in the Oak Ridge Institute of Nuclear Physics and the Radioisotopes Laboratory, at Chapel Hill; Institute of Statistics, the Minerals Research Laboratory and the Department of Engineering Research at Raleigh.

research personnel who bring this money into the service of the University and the state.

Except, then, for agricultural research, the University has a minimum of budgeted funds for research as such, and we are dependent in virtually all areas for support from foundations, from individual grants, and from contracts with public and private agencies. As may be expected, we are badly out of balance with respect to many vital areas of work; and, as a university, we are embarrassed in planning and doing authentic university work.

*The Vital Importance of Research to
University and State*

Research in all areas is a fundamental process in the life of the University, and the University is the primary public research agency. If we are to become a truly great university, if we are to consolidate our gains of recent years, we must establish research, particularly basic research, in a more stable position throughout the University. And if North Carolina, as I have already noted, is to make more than significant progress during the next half-century, research of all types must be accepted and supported in far greater proportions than in the past.

Within the University, the process of inquiry, of investigation, of empirical study, of creative thought and writing, and of the application of labor and imagination to all aspects of the world in which we live—this total process is the very pulse beat of our academic life. There can be no university where this is not present and viable, for the researcher and creative thinker and writer are the prime producers of academic goods. It is research, thus broadly defined, that in a major way sets the level of scholarship and upraises the standards of education, that enlarges the scope of the teacher and his teaching, and that pushes forward the frontiers of knowledge. The process of research, quite apart from any specific results, is comparable in the life of a university to the pursuit of justice in our law and government, or to the search for improved quality and efficiency in an industrial organization.

Free and unfettered research, governed only by the professional standards, integrity, and morality of the academic community, has been a major force in our economic well-being and national security, and a prime element in our democratic living.

The money return to the state from research carried on within the University over the years is virtually incalculable. I have already alluded to the significant returns that are coming in as the result of the work of the Institute of Fisheries Research. The nearly half-billion dollar annual tobacco crop in the state is largely possible through research, particularly on the control of disease. Some \$200,000 has been spent on hybrid corn research at State College since 1936. Currently, slightly over forty percent of the state's corn acreage is planted to hybrid corn varieties thus developed and North Carolina farmers receive, as a result of the higher yields of this corn, an extra \$20,000,000 each year. Research and creative work sometimes pays off financially in unexpected places. The several outdoor dramas, growing directly out of longtime work of the Carolina Playmakers at Chapel Hill, have been a prime factor in the great increase in tourists coming to the eastern and western parts of the state.

A long list of examples, involving many millions of dollars, could be made to show the value of research to the people of the state. But it is shortsighted and fatal to think of research only in terms of money return. Literally, this policy will kill the goose that lays the golden egg. Research for the sake of extending basic knowledge and understanding is the key to all other types of research, and this never can be tied directly to money return. We have learned this the hard way in the sciences: the Nation, for both security and economic reasons, is desperately in need of men capable of doing basic theoretical work, largely because so many of our best people have been put to tasks that are essentially engineering, manufacturing, or administrative. Many of our top scientists are seeking refuge in universities from government and industrial work, because it is there that they can carry on their important work.

The importance of basic university research exists to the same, or even greater degree, in the areas of the humanities and social sciences. Two everyday

statements about our troubled world describe the importance of work in these areas: we must preserve human values and traditions in an age of totalitarian inhumanity; and we must master our social life lest we destroy ourselves. The potential contribution of the humanities and the social sciences to these problems is great. But the humanities have suffered in our time, and they require direct support to regain their vitality and influence. Similarly, the social sciences, though generally somewhat better favored financially than the humanities, are only beginning to achieve maturity.

I must report to you, therefore, that one of our primary needs is free, uncommitted money for research by faculty members. From various sources, we are bringing research money into the service of the University and the state. We will continue to do so, as is our duty. But to achieve the excellence of which I spoke earlier, we require money of our own, so that we can encourage more directly on the three campuses our own thinking and our own work. This money is particularly needed for those areas that are not popular with foundations and others; and for the large number of faculty members pursuing unsupported research who need help at critical times. Modest requests to the Legislature in recent years for such funds have not been successful, but we expect to renew them. We are hopeful that funds made available through the Development Programs can be allocated directly to the support of research in the near future.

EXTENDED SERVICES

The University each year touches directly in an educational way over 2,000,000 people in North Carolina—or roughly half of the state's population. While many thousands of these contacts have been made on the three campuses, the great bulk of them have been off the campuses, through such activities as extension classes, correspondence instruction, agricultural demonstrations, through the North Carolina Symphony, the Gaston Technical Institute, and in many other ways. We cannot lay claim, of course, to

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teaching this many people in any sustained sense. But, in actual fact, a surprisingly large number of these contacts are of a vital and measurable nature. I would like to list below some of the more substantial educational services provided during 1952-53.

A total of 1,331 persons took extension courses for credit at Chapel Hill; 1,584 at State College.

A total of 752 persons enrolled in extension classes given at various points in the state by the University at Chapel Hill; 1,835 in classes taught by State College.

A total of 10,412 persons attended short courses, workshops and intensive conferences at Chapel Hill; 3,688 at Raleigh; 2,760 at Greensboro.

The Agricultural Extension Division of the School of Agriculture at State College, organized separately from other extension activities, submitted the following report for the year 1952-53:

SUMMARY OF MEETINGS AND DEMONSTRATIONS HELD

87,075 Adult, local leaders attended	4,123 Meetings
61,058 4-H Club leaders attended	2,545 Meetings
491,138 Farm men and women attended	24,316 Demonstrations
806,424 Farm youths (mostly 4-H) attended	25,778 Demonstrations
302,351 Adults instructed by local leaders at	11,596 Meetings
135,212 4-H Members instructed by local leaders at	4,009 Meetings

TELEVISION

The University, with each of the three units participating, is now in the process of establishing educational television as one of its activities. It is planned that limited operations will be begun during the 1954-55 school year.

The decision to enter the field of educational television was reached after much deliberation and thought. The Federal Communications Commission

made available to the University one of the relatively few VHF channels. We were required by the Commission to make our intentions known by June of 1952.

Several basic questions presented themselves. There was first and foremost to be answered: "Does television present an educational opportunity that may properly be used by a university?" Since we could not wait and observe the definitive results of other educational television efforts, we were forced largely to arrive at our own answers. As a medium, television clearly presents new and impressive features for wide-scale communication. It brings the whole person to the viewer and it makes demonstration and illustration possible. It requires the entire attention of the viewer, so that there exists the possibility of reaching him in a significant way. As a minimum, it appeared reasonably certain that television offered a way of supplementing and enlarging many of the extended activities now carried on by the University: correspondence courses, extension classes, demonstrations, panel discussions, cultural programs, and so on.

From the above proceeds perhaps the most disputed potential of educational television: the giving of instruction for credit. There are extremists on this point: some who view this as the great instructional frontier of the future; others who see in this the negation of the essentials of university instruction. A very small number of universities have had encouraging results in certain areas of instruction. I feel that in this area we must proceed one step at a time to discover just what the potential may be. I do not foresee any degrees being awarded exclusively through television; it is worth finding out, however, whether or not television courses may profitably and authentically supplement resident instruction. Within the University, on closed circuits, it seems likely that television may well be of great value in teaching.

I have been increasingly impressed, also, with the possibilities contained in television for the partial solution of a problem that has disturbed our most thoughtful faculty members. This problem concerns the relative separation of the scholarship, research, and thought that are the very heart of the University from the great bulk of the people of the state. There is no substitute, of course, for a student in residence

in daily contact with teachers. Nevertheless, there seems to be a broad, and presently void, area of possible contact between the people of the state and the faculty members, and at a high and mature level. I am thinking here of people of the state who would be genuinely interested in a discussion by some of our distinguished scientists of the nature, limitations and prospects of science in the modern world; or a discussion of great literature of the past and present by an English scholar; or the interpretation of various social developments by mature social scientists; or of basic issues at law by members of the Law School faculty. Here the University might become more of a stable reference point, more of a spiritual and intellectual resource for a great body of the people of the state.

All of these considerations contributed to the decision to go forward with educational television. There was one other factor. That was: "Does the State University have the right to remain aloof from even a trial of an element that gives promise of being so vital in the life of the state?" This question takes on added weight when it is realized that there is no other agency in the state that is equipped to explore this field, nor which could properly be so equipped. It is not a job for the state, nor the church, nor for business.

These considerations strongly recommended the propriety and desirability of the University's exploring, at least, the field of educational television.

The second basic question dealt with the cost of establishing the television facilities on each of the campuses. Approximately \$1,020,000 has been raised through private donations, largely through the efforts of Vice President and Controller Carmichael. It is anticipated that the television program will pay part of its way. Some requests may have to be made to the Legislature for operating funds.

On the basis of the above considerations, the decision was made for the University to go into the field of educational television. With one central transmitting station to be located in Chatham County, there will be studios on each of the three campuses. For the first year of operation, programs are already in the process of development for adult education, out-of-school children, for farmers and farm fam-

ilies, and in other similar areas. The matter of giving credit instruction is still under consideration.

THE ALL UNIVERSITY CONFERENCE

On March 3 and 4 of 1953 there was held in Chapel Hill the first All University Conference on the State of the University. The purpose of the Conference was to allow some 200 representative faculty members of all ranks to assemble for two days and consider, in discussion groups, the various problems and policies of the University. The Conference participants concentrated on the four main areas of the University's work:

Undergraduate Instruction
Student Faculty Relations
Graduate Training and Research
The Mission of the University in the Service of the State

The faculties moved boldly and critically across these areas, and provided both themselves and others with a penetrating and valuable assessment of the University's work. Their recommendations were mainly of three sorts. There were a number of specific recommendations that could be activated with the means at hand; there were other specific recommendations as, for instance, the establishment of graduate fellowships, which will have to wait on time and resources. There were, also, some extremely valuable recommendations concerning general policy, recommendations that will influence directly many of our day-to-day decisions and our long range planning.

I am convinced that these meetings are of great value to administration and faculty alike, affording the faculties the opportunity to deal basically and fundamentally with the academic matters that are the heart of the University.

The dinner meeting at which the reports of the Conference deliberations were read was, so far as I can determine, the first total faculty meeting of all of the faculties of the three units of the University if the O. Max Gardner Award Dinner be excepted. An annual occasion such as this is, in my view, highly de-

sirable. I am reliably informed, also, that the working together during the two days of the faculty members from the three campuses was a stimulating and worthwhile experience for those involved.

A second such faculty conference is scheduled for February 18 and 19 of 1954.

BUILDING PROGRAMS

The University along with other state-supported institutions, has shared in good measure the state's building program begun in the 1947 Legislature. A total of \$47,069,478.00* has been appropriated by that and succeeding Legislatures through 1953 for permanent improvements on the three campuses. The division among the three units has been as follows:

U N C	\$21,429,800.00
N C S	18,172,578.00
W C	7,467,100.00

Total\$47,069,478.00*

These appropriations constitute seventy-five percent of all appropriations for permanent improvement in the history of the three institutions.

This building program, while leaving us with some vitally important needs, has generally provided the University with an excellent physical plant.

CONCLUSION

It seems appropriate, in conclusion, to make some general observations about the University which will reflect the work and devotion of those administrative people and faculty members who have served the University so well.

I would, therefore, emphasize again the tremendous difficulties through which each of the institutions has passed during the past twenty-five years—the times of depression and the continuing upsets and confu-

* A detailed statement of this program is contained in the appendix.

sions of World War II, the Korean War, and their aftermaths. Not only the institutions have suffered in these circumstances; these events have dealt hard with individual faculty members. There have been few eras in which more direct and unselfish devotion to institution has been required of administrative people and faculty members; and in which the demands of personal discipline in pursuing and teaching knowledge have been more rigorous.

The measure of how our administrative and faculty people have met these demands is found, quite simply, in the fact that the University has come through sound and, not only whole, but also wholesome and forward looking. In many areas excellence has been achieved despite the difficulties; in all areas, honesty and integrity have been maintained and reaffirmed time and again. The University has grown stronger. These things did not just happen. They were accomplished by people of hard work and strong faith. In dealing candidly in this report with our needs and defects, I am seeking to chart for the future ways of improving the good.

The consequence is that I may report to you, in truth, that we can think of the University—indeed, must think of it—as a creative, dynamic force in the life of our state, a place where questions may be asked and answers sought with integrity and without fear; where students may learn, scholars may work, and from which the people of the state may draw spiritual strength and material well-being.

APPENDIX

APPROPRIATIONS BY THE NORTH CAROLINA LEGISLATURE FOR PERMANENT IMPROVEMENTS 1947-1953

1947

UNIVERSITY AT CHAPEL HILL

Three Dormitories	\$1,200,000.00
Memorial Hospital	1,700,000.00
Nurses', Internes' and Residents' Quarters and Nursing School	1,290,000.00
Library Addition	1,140,000.00
Lenoir Hall Addition	174,000.00
Laundry Addition	60,800.00
Medical School Addition	200,000.00
Equipment	770,000.00
Utilities Expansion and Campus Improvement	1,310,000.00
Total	<u>\$7,844,800.00</u>

THE WOMAN'S COLLEGE

Laundry	\$121,600.00
Student Union	350,000.00
Dormitories	636,000.00
Dining Hall Renovation	225,000.00
Infirmery	280,000.00
Library	775,000.00
Home Economics Bldg.	640,000.00
Extension of Utilities	150,000.00
Total	<u>\$3,177,600.00</u>

N. C. STATE COLLEGE

General Engineering Laboratory	\$1,210,333.00
Agronomy Building	900,000.00
Additions to Textile Building	500,000.00
Poultry Building	175,000.00
Renovation of Winston Hall	40,000.00
Addition to Electrical Building	225,000.00
Armory-Colosseum Completion	350,000.00
Mechanical Engineering Building	780,000.00
Debt Retirement on Dormitories	1,100,000.00
Other Building and Campus Improvement	1,245,000.00
Agriculture Experiment Station	241,200.00
Total	<u>\$6,766,533.00</u>

1949

UNIVERSITY AT CHAPEL HILL

Hospital	\$3,644,000.00
Nurses', Internes' and Residents' Quarters and Nursing School	761,625.00
Venereal Disease Research Laboratory	175,000.00
School of Business Administration (Buildings)	1,785,000.00
Dormitory	930,000.00
School of Dentistry	868,305.00
Library Addition	375,000.00
Laundry Addition	15,000.00
Law School Addition	588,500.00
Chemistry Addition	900,000.00
Equipment	1,100,570.00
Utilities Expansion and Campus Improvement	1,041,000.00
Total	\$12,184,000.00

THE WOMAN'S COLLEGE

Library Equipment	\$ 40,000.00
Dormitories	478,900.00
Home Economics Bldg.	470,000.00
Student Union Bldg.	675,600.00
Infirmary	478,000.00
Old Library Conversion	185,000.00
Remodel Curry School	75,000.00
Science Bldg. Addition	336,000.00
Gymnasium	820,000.00
Nursery School	118,000.00
Extension of Utilities	318,000.00
Total	\$3,994,500.00

N. C. STATE COLLEGE

Supplement to 1947 Appropriation	\$2,090,045.00
Botany-Zoology Building	1,240,000.00
Library	1,500,000.00
Textile Equipment	200,000.00
Student Union	950,000.00
Forestry-Horticulture Building	774,000.00
Addition of two stories to Civil Engineering Building	390,000.00
Renovating Physics Laboratory	100,000.00
Dormitories	1,000,000.00
Renovation of Engineering Shops	150,000.00
Other Building and Campus Improvement	504,000.00
Agriculture Experiment Station	243,500.00
Total	\$9,141,545.00

1951

N. C. STATE COLLEGE

Animal Disease Diagnostic Laboratory	\$ 50,000.00
Total	\$ 50,000.00

1953

UNIVERSITY AT CHAPEL HILL

School of Dentistry	\$ 46,000.00
Institute of Government	500,000.00
Medical School Addition	25,000.00
Dormitory Renovation	196,000.00
Bingham Hall Renovation	41,000.00
Peabody Hall, Excavation of Basement	36,000.00
Fire Escapes	20,000.00
Equipment	537,000.00
Total	\$1,401,000.00

THE WOMAN'S COLLEGE

Renovation and Campus Improvement	\$ 295,000.00
Total	\$ 295,000.00

N. C. STATE COLLEGE

School of Design	\$ 465,000.00
Agricultural Engineering	400,000.00
Pulp Laboratory	200,000.00
Renovation of Polk Hall	150,000.00
Renovation of Winston Hall	140,000.00
Renovation of Dormitories	125,000.00
Completion of Nuclear Reactor Building	120,000.00
Other Renovation and Improvement	614,500.00
Total	\$2,214,500.00

THE WOMANS COLLEGE AT GREENSBORO

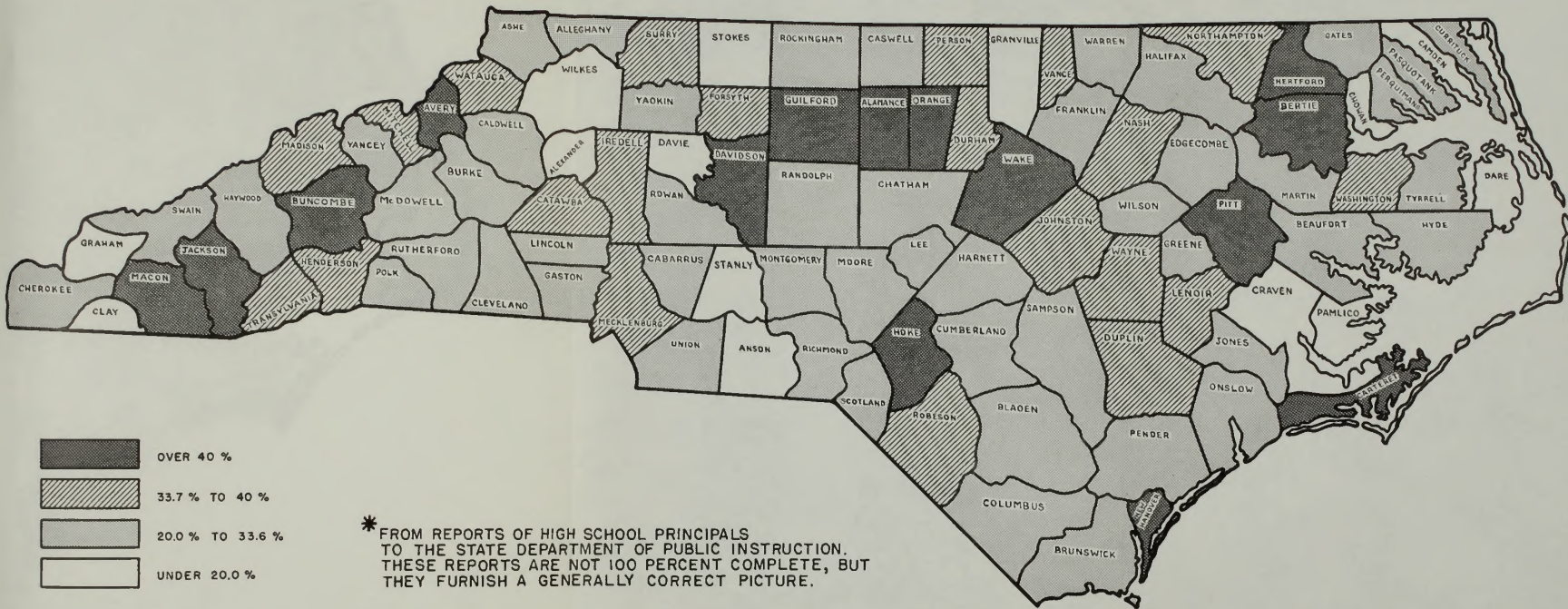
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graph TD
    President[President] --> DeanGraduate[Dean Graduate School]
    President --> Chancellor[Chancellor]
    President --> VPAcademic[Vice President Academic]
    President --> VPController[Vice President and Controller]
    
    DeanGraduate --> AssocDeanGraduate[Associate Dean Graduate School]
    AssocDeanGraduate --> DeanStudents[Dean Students]
    DeanStudents --> SecyTreas[Secretary/Treasurer]
    DeanStudents --> DirRes[Director Residence Halls]
    DeanStudents --> DirPhys[College Physician]
    DeanStudents --> DirUniv[Director University Student Union]
    DeanStudents --> CoordRel[Coordinator Religious Activities]
    DeanStudents --> StudentAid[Student Aid Office]
    DeanStudents --> CommRes[Commission on Residence Halls]
    DeanStudents --> Placement[Placement Office]
    
    Chancellor --> CurComm[Curriculum Committee Schedule of Classes Committee]
    Chancellor --> DirInstr[Director Instruction]
    DirInstr --> DirAdm[Director Admissions]
    DirInstr --> Registrar[Registrar]
    DirInstr --> ClassChmn[Class Chairman]
    Chancellor --> DirPubRel[Director Public Relations]
    Chancellor --> DirHvB[Director HVE Bureau]
    DirHvB --> BldgComm[Buildings and Grounds Committee]
    DirHvB --> SupInt[Superintendent Buildings and Grounds]
    Chancellor --> AsstCtrl[Assistant Controller and Business Manager]
    AsstCtrl --> Auditor[Auditor]
    AsstCtrl --> DirComm[Director Communications]
    AsstCtrl --> DirBus[Director Business]
    AsstCtrl --> DirVest[Director Vest Office]
    
    DeanStudents --> Lib[Librarian]
    Lib --> LibComm[Library Committee]
    
    DeanStudents --> HeadArt[Head Department of Art]
    HeadArt --> HeadPhilo[Head Department of Philosophy]
    HeadArt --> HeadGovt[Head Dept. of Government and Government Admin.]
    HeadArt --> HeadPhysEd[Head Department of Physical Education]
    HeadArt --> HeadSchEd[Head School of Education]
    HeadArt --> HeadEngl[Head Department of English]
    HeadArt --> HeadSci[Head Department of Science]
    HeadArt --> HeadEcon[Head Department of Economics]
    HeadArt --> HeadMus[Dean School of Music]
    HeadArt --> HeadJmsSc[Dean School of Journalism]
    HeadArt --> HeadPrin[Principal Clark Training School]
    HeadArt --> HeadMgt[Manager HVE Economic Capital]
    
    HeadArt --> HeadHist[Head Department of History]
    HeadArt --> HeadGer[Head Department of German]
    HeadArt --> HeadHeal[Head Department of Health]
    HeadArt --> HeadLitSci[Head Department of Literature and Political Science]
    HeadArt --> HeadMath[Head Department of Mathematics]
    HeadArt --> HeadChem[Head Department of Chemistry]
    HeadArt --> HeadPhys[Head Department of Physics]
    HeadArt --> HeadAnth[Head Department of Anthropology]
    HeadArt --> HeadLan[Head Department of Languages]
    HeadArt --> HeadCiv[Head Department of Civic Education]
    
    HeadArt --> HeadRel[Head Department of Religion]
    HeadArt --> HeadEnv[Head Department of Environment]
    HeadArt --> HeadPub[Head Department of Public Health]
    HeadArt --> HeadMed[Head Department of Medicine]
    HeadArt --> HeadPharm[Head Department of Pharmacy]
    HeadArt --> HeadNurs[Head Department of Nursing]
    HeadArt --> HeadDent[Head Department of Dentistry]
    HeadArt --> HeadVet[Head Department of Veterinary Medicine]
    HeadArt --> HeadAgr[Head Department of Agriculture]
    HeadArt --> HeadFore[Head Department of Forestry]
    HeadArt --> HeadFish[Head Department of Fisheries]
    HeadArt --> HeadWild[Head Department of Wildlife]
    HeadArt --> HeadMar[Head Department of Marine Biology]
    HeadArt --> HeadAtm[Head Department of Atmospheric Sciences]
    HeadArt --> HeadGeo[Head Department of Geology]
    HeadArt --> HeadEnv[Head Department of Environmental Science]
    HeadArt --> HeadPlan[Head Department of Planning]
    HeadArt --> HeadEval[Head Department of Evaluation]
    HeadArt --> HeadComm[Head Department of Communications]
    HeadArt --> HeadBus[Head Department of Business]
    HeadArt --> HeadVest[Head Department of Vest Office]
  
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NORTH CAROLINA STATE COLLEGE AT RALEIGH
JULY 1, 1953



PERCENTAGE OF 1952 NORTH CAROLINA
HIGH SCHOOL GRADUATES ENTERING COLLEGE *



STUDENTS BY COUNTIES, IN THE CONSOLIDATED UNIVERSITY, FALL, 1952

